

Exceptional Subgroups of $\mathbf{SL}_3\mathbb{C}$

For each exceptional subgroup of $\mathbf{SL}_3\mathbb{C}$ (types E, F, G, H, I, J, K, L), we give the expression of the polynomials $N_\Gamma(t, u)_i$ and $D_\Gamma(t, u)_i$ such that $P_\Gamma(t, u)_i = \frac{N_\Gamma(t, u)_i}{D_\Gamma(t, u)_i}$.

In all the cases, the denominator is of the form $D_\Gamma(t, u)_i = \widetilde{D}_\Gamma(t)_i \widetilde{D}_\Gamma(u)_i$. Moreover, we will take the lowest common multiple $D_\Gamma(t)$ of the $\widetilde{D}_\Gamma(t)_i$'s in order that all the denominators are the same and have the form $D_\Gamma(t)D_\Gamma(u)$, i.e.

$$\forall i \in [0, l], \quad \boxed{P_\Gamma(t, u)_i = (1 - tu) \frac{M_\Gamma(t, u)_i}{D_\Gamma(t)D_\Gamma(u)}}.$$

1 Type E

$$D_E(t) = (t - 1)^3 (t^2 + t + 1)^3 (t^2 + 1) (t^4 - t^2 + 1) (t + 1)^2 (t^2 - t + 1)^2$$

$$\begin{aligned} M_E(t, u)_0 = & t^{18}u^{18} + t^{17}u^{17} - t^{18}u^{15} - t^{15}u^{18} + 2t^{16}u^{16} + t^{18}u^{12} + 5t^{15}u^{15} + t^{12}u^{18} + 2t^{17}u^{11} + 8t^{14}u^{14} + \\ & 2t^{11}u^{17} + t^{15}u^{12} + t^{12}u^{15} + 6t^{16}u^{10} + 13t^{13}u^{13} + 6t^{10}u^{16} + t^{18}u^6 + 8t^{15}u^9 + 15t^{12}u^{12} + 8t^9u^{15} + t^6u^{18} + 3t^{17}u^5 + \\ & 12t^{14}u^8 + 20t^{11}u^{11} + 12t^8u^{14} + 3t^5u^{17} - t^{18}u^3 + t^{15}u^6 + t^6u^{15} - t^3u^{18} + 4t^{16}u^4 + 14t^{13}u^7 + 18t^{10}u^{10} + 14t^7u^{13} + \\ & 4t^4u^{16} + t^{18} + 5t^{15}u^3 + 15t^{12}u^6 + 20t^9u^9 + 15t^6u^{12} + 5t^3u^{15} + u^{18} + 4t^{14}u^2 + 14t^{11}u^5 + 18t^8u^8 + 14t^5u^{11} + \\ & 4t^2u^{14} - t^{15} + t^{12}u^3 + t^3u^{12} - u^{15} + 3t^{13}u + 12t^{10}u^4 + 20t^7u^7 + 12t^4u^{10} + 3tu^{13} + t^{12} + 8t^9u^3 + 15t^6u^6 + 8t^3u^9 + \\ & u^{12} + 6t^8u^2 + 13t^5u^5 + 6t^2u^8 + t^6u^3 + t^3u^6 + 2t^7u + 8t^4u^4 + 2tu^7 + t^6 + 5t^3u^3 + u^6 + 2t^2u^2 - t^3 - u^3 + tu + 1 \end{aligned}$$

$$\begin{aligned} M_E(t, u)_1 = & -2(t^{16}u^{16} + t^{18}u^{12} + 2t^{15}u^{15} + t^{12}u^{18} + 2t^{17}u^{11} + 4t^{14}u^{14} + 2t^{11}u^{17} - t^{18}u^9 - t^9u^{18} + 3t^{16}u^{10} + \\ & 6t^{13}u^{13} + 3t^{10}u^{16} + t^{18}u^6 + 5t^{15}u^9 + 7t^{12}u^{12} + 5t^9u^{15} + t^6u^{18} + t^{17}u^5 + 6t^{14}u^8 + 8t^{11}u^{11} + 6t^8u^{14} + t^5u^{17} + \\ & t^{12}u^9 + t^9u^{12} + 2t^{16}u^4 + 8t^{13}u^7 + 9t^{10}u^{10} + 8t^7u^{13} + 2t^4u^{16} + 2t^{15}u^3 + 7t^{12}u^6 + 8t^9u^9 + 7t^6u^{12} + 2t^3u^{15} + \\ & 2t^{14}u^2 + 8t^{11}u^5 + 9t^8u^8 + 8t^5u^{11} + 2t^2u^{14} + t^9u^6 + t^6u^9 + t^{13}u + 6t^{10}u^4 + 8t^7u^7 + 6t^4u^{10} + tu^{13} + t^{12} + \\ & 5t^9u^3 + 7t^6u^6 + 5t^3u^9 + u^{12} + 3t^8u^2 + 6t^5u^5 + 3t^2u^8 - t^9 - u^9 + 2t^7u + 4t^4u^4 + 2tu^7 + t^6 + 2t^3u^3 + u^6 + t^2u^2) \end{aligned}$$

$$\begin{aligned} M_E(t, u)_2 = M_E(t, u)_3 = & (t^{12}u^9 + t^9u^{12} + 2t^{11}u^8 + 2t^8u^{11} - t^{12}u^6 - t^6u^{12} + 5t^{10}u^7 + 5t^7u^{10} + t^{12}u^3 + \\ & 7t^9u^6 + 7t^6u^9 + t^3u^{12} + t^{11}u^2 + 10t^8u^5 + 10t^5u^8 + t^2u^{11} + 4t^6u^6 + t^{10}u + 10t^7u^4 + 10t^4u^7 + tu^{10} + t^9 + 7t^6u^3 + \\ & 7t^3u^6 + u^9 + 5t^5u^2 + 5t^2u^5 - t^6 - u^6 + 2t^4u + 2tu^4 + t^3 + u^3) (u^2 + 1) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1) \end{aligned}$$

$$\begin{aligned} M_E(t, u)_4 = & t^{17}u^{18} + 2t^{16}u^{17} + t^{17}u^{15} + 3t^{18}u^{13} + 6t^{15}u^{16} + 4t^{16}u^{14} + 3t^{13}u^{17} + 5t^{17}u^{12} + 12t^{14}u^{15} + \\ & 2t^{11}u^{18} + 7t^{15}u^{13} + 6t^{12}u^{16} + 12t^{16}u^{11} + 20t^{13}u^{14} + 6t^{10}u^{17} + 4t^{17}u^9 + 12t^{14}u^{12} + 10t^{11}u^{15} + 2t^{18}u^7 + \\ & 18t^{15}u^{10} + 27t^{12}u^{13} + 12t^9u^{16} + 6t^{16}u^8 + 14t^{13}u^{11} + 12t^{10}u^{14} + 2t^7u^{17} + 5t^{17}u^6 + 24t^{14}u^9 + 34t^{11}u^{12} + \\ & 18t^8u^{15} + 3t^5u^{18} + 10t^{15}u^7 + 18t^{12}u^{10} + 16t^9u^{13} + 6t^6u^{16} + 10t^{16}u^5 + 30t^{13}u^8 + 36t^{10}u^{11} + 24t^7u^{14} + \\ & 4t^4u^{17} + t^{17}u^3 + 12t^{14}u^6 + 16t^{11}u^9 + 18t^8u^{12} + 7t^5u^{15} + t^{18}u + 12t^{15}u^4 + 34t^{12}u^7 + 36t^9u^{10} + 27t^6u^{13} + \\ & 6t^3u^{16} + 2t^{16}u^2 + 13t^{13}u^5 + 18t^{10}u^8 + 20t^7u^{11} + 8t^4u^{14} + tu^{17} + t^{17} + 12t^{14}u^3 + 34t^{11}u^6 + 36t^8u^9 + \\ & 27t^5u^{12} + 6t^2u^{15} + t^{15}u + 12t^{12}u^4 + 16t^9u^7 + 18t^6u^{10} + 7t^3u^{13} + 10t^{13}u^2 + 30t^{10}u^5 + 36t^7u^8 + 24t^4u^{11} + \\ & 4tu^{14} + 10t^{11}u^3 + 18t^8u^6 + 16t^5u^9 + 6t^2u^{12} + 5t^{12}u + 24t^9u^4 + 34t^6u^7 + 18t^3u^{10} + 3u^{13} + 6t^{10}u^2 + \\ & 14t^7u^5 + 12t^4u^8 + 2tu^{11} + 2t^{11} + 18t^8u^3 + 27t^5u^6 + 12t^2u^9 + 4t^9u + 12t^6u^4 + 10t^3u^7 + 12t^7u^2 + 20t^4u^5 + \\ & 6tu^8 + 7t^5u^3 + 6t^2u^6 + 5t^6u + 12t^3u^4 + 2u^7 + 4t^4u^2 + 3tu^5 + 3t^5 + 6t^2u^3 + t^3u + 2tu^2 + u \end{aligned}$$

$$M_E(t, u)_5 = M_E(u, t)_4$$

$$\begin{aligned} M_E(t, u)_6 = & -2(t^{16}u^{17} + t^{17}u^{15} + t^{18}u^{13} + 3t^{15}u^{16} + 2t^{16}u^{14} + t^{13}u^{17} + 3t^{17}u^{12} + 6t^{14}u^{15} + 2t^{11}u^{18} + \\ & 4t^{15}u^{13} + 3t^{12}u^{16} + 6t^{16}u^{11} + 10t^{13}u^{14} + 3t^{10}u^{17} + t^{17}u^9 + 6t^{14}u^{12} + 4t^{11}u^{15} + 2t^{18}u^7 + 9t^{15}u^{10} + 14t^{12}u^{13} + \\ & 6t^9u^{16} + 3t^{16}u^8 + 8t^{13}u^{11} + 6t^{10}u^{14} + 2t^7u^{17} + 3t^{17}u^6 + 12t^{14}u^9 + 16t^{11}u^{12} + 9t^8u^{15} + t^5u^{18} + 4t^{15}u^7 + \\ & 9t^{12}u^{10} + 7t^9u^{13} + 3t^{16}u^5 + 5t^{16}u^5 + 15t^{13}u^8 + 18t^{10}u^{11} + 12t^7u^{14} + 2t^4u^{17} + t^{17}u^3 + 6t^{14}u^6 + 10t^{11}u^9 + \\ & 9t^8u^{12} + 4t^5u^{15} + 6t^{15}u^4 + 16t^{12}u^7 + 18t^9u^{10} + 14t^6u^{13} + 3t^3u^{16} + t^{16}u^2 + 6t^{13}u^5 + 9t^{10}u^8 + 8t^7u^{11} + \\ & 4t^4u^{14} + 6t^{14}u^3 + 16t^{11}u^6 + 18t^8u^9 + 14t^5u^{12} + 3t^2u^{15} + t^{15}u + 6t^{12}u^4 + 10t^9u^7 + 9t^6u^{10} + 4t^3u^{13} + \\ & 5t^{13}u^2 + 15t^{10}u^5 + 18t^7u^8 + 12t^4u^{11} + 2tu^{14} + 4t^{11}u^3 + 9t^8u^6 + 7t^5u^9 + 3t^2u^{12} + 3t^{12}u + 12t^9u^4 + \\ & 16t^6u^7 + 9t^3u^{10} + u^{13} + 3t^{10}u^2 + 8t^7u^5 + 6t^4u^8 + 2tu^{11} + 2t^{11} + 9t^8u^3 + 14t^5u^6 + 6t^2u^9 + t^9u + 6t^6u^4 + \end{aligned}$$

$$4t^3u^7 + 6t^7u^2 + 10t^4u^5 + 3tu^8 + 4t^5u^3 + 3t^2u^6 + 3t^6u + 6t^3u^4 + 2u^7 + 2t^4u^2 + tu^5 + t^5 + 3t^2u^3 + t^3u + tu^2)$$

$$M_E(t, u)_7 = M_E(u, t)_6$$

$$M_E(t, u)_8 = M_E(t, u)_9 = (t^{12}u^{10} + t^{10}u^{11} + 3t^{11}u^9 + 2t^8u^{12} + 3t^9u^{10} + 8t^{10}u^8 + 5t^7u^{11} + 3t^{11}u^6 + 6t^8u^9 + 2t^{12}u^4 + 15t^9u^7 + 10t^6u^{10} + 5t^{10}u^5 + 10t^7u^8 + 2t^4u^{11} + 3t^{11}u^3 + 20t^8u^6 + 15t^5u^9 + t^2u^{12} + 6t^9u^4 + 15t^6u^7 + 3t^3u^{10} + 4t^{10}u^2 + 25t^7u^5 + 16t^4u^8 + tu^{11} + 6t^8u^3 + 15t^5u^6 + 3t^2u^9 + 3t^9u + 20t^6u^4 + 15t^3u^7 + u^{10} + 5t^7u^2 + 10t^4u^5 + 2tu^8 + 2t^8 + 15t^5u^3 + 10t^2u^6 + 3t^6u + 6t^3u^4 + 8t^4u^2 + 5tu^5 + 3t^2u^3 + 3t^3u + 2u^4 + tu^2 + t^2)(u^2 + 1)(u^4 - u^2 + 1)(t^2 + 1)(t^4 - t^2 + 1)$$

$$M_E(t, u)_{10} = M_E(t, u)_{11} = M_E(u, t)_8$$

$$M_E(t, u)_{12} = M_E(t, u)_{13} = (t^2u + u^2 + t)(t^2u^2 + tu + 1)(tu^2 + t^2 + u)(u^2 + 1)(u^4 - u^2 + 1)(u + 1)^2(u^2 - u + 1)^2(t^2 + 1)(t^4 - t^2 + 1)(t + 1)^2(t^2 - t + 1)^2$$

The Poincaré series of the invariant ring is

$$P_E(t, 0)_0 = P_E(0, t)_0 = \frac{-t^{18} + t^{15} - t^{12} - t^6 + t^3 - 1}{(t - 1)^3(t^2 + t + 1)^3(t^2 + 1)(t^4 - t^2 + 1)(t + 1)^2(t^2 - t + 1)^2}.$$

2 Type F

$$D_F(t) = (t - 1)^3(t^2 + t + 1)^3(t^2 + 1)(t^4 - t^2 + 1)(t + 1)^2(t^2 - t + 1)^2$$

$$M_F(t, u)_0 = t^{18}u^{18} + t^{17}u^{17} - t^{18}u^{15} - t^{15}u^{18} + t^{16}u^{16} + 3t^{15}u^{15} + 4t^{14}u^{14} + t^{18}u^9 + t^{15}u^{12} + t^{12}u^{15} + t^9u^{18} + 3t^{16}u^{10} + 7t^{13}u^{13} + 3t^{10}u^{16} + 3t^{15}u^9 + 8t^{12}u^{12} + 3t^9u^{15} + 2t^{17}u^5 + 6t^{14}u^8 + 12t^{11}u^{11} + 6t^8u^{14} + 2t^5u^{17} - t^{18}u^3 + t^{15}u^6 - t^{12}u^9 - t^9u^{12} + t^6u^{15} - t^3u^{18} + 2t^{16}u^4 + 6t^{13}u^7 + 9t^{10}u^{10} + 6t^7u^{13} + 2t^4u^{16} + t^{18} + 3t^{15}u^3 + 8t^{12}u^6 + 12t^9u^9 + 8t^6u^{12} + 3t^3u^{15} + u^{18} + 2t^{14}u^2 + 6t^{11}u^5 + 9t^8u^8 + 6t^5u^{11} + 2t^2u^{14} - t^{15} + t^{12}u^3 - t^9u^6 - t^6u^9 + t^3u^{12} - u^{15} + 2t^{13}u + 6t^{10}u^4 + 12t^7u^7 + 6t^4u^{10} + 2tu^{13} + 3t^9u^3 + 8t^6u^6 + 3t^3u^9 + 3t^8u^2 + 7t^5u^5 + 3t^2u^8 + t^9 + t^6u^3 + t^3u^6 + u^9 + 4t^4u^4 + 3t^3u^3 + t^2u^2 - t^3 - u^3 + tu + 1$$

$$M_F(t, u)_1 = M_F(t, u)_2 = M_F(t, u)_3 = t^{16}u^{16} + t^{18}u^{12} + 2t^{15}u^{15} + t^{12}u^{18} + 2t^{17}u^{11} + 4t^{14}u^{14} + 2t^{11}u^{17} - t^{18}u^9 - t^9u^{18} + 3t^{16}u^{10} + 6t^{13}u^{13} + 3t^{10}u^{16} + t^{18}u^6 + 5t^{15}u^9 + 7t^{12}u^{12} + 5t^9u^{15} + t^6u^{18} + t^{17}u^5 + 6t^{14}u^8 + 8t^{11}u^{11} + 6t^8u^{14} + t^5u^{17} + t^{12}u^9 + t^9u^{12} + 2t^{16}u^4 + 8t^{13}u^7 + 9t^{10}u^{10} + 8t^7u^{13} + 2t^4u^{16} + 2t^{15}u^3 + 7t^{12}u^6 + 8t^9u^9 + 7t^6u^{12} + 2t^3u^{15} + 2t^{14}u^2 + 8t^{11}u^5 + 9t^8u^8 + 8t^5u^{11} + 2t^2u^{14} + t^9u^6 + t^6u^9 + t^{13}u + 6t^{10}u^4 + 8t^7u^7 + 6t^4u^{10} + tu^{13} + t^{12} + 5t^9u^3 + 7t^6u^6 + 5t^3u^9 + u^{12} + 3t^8u^2 + 6t^5u^5 + 3t^2u^8 - t^9 - u^9 + 2t^7u + 4t^4u^4 + 2tu^7 + t^6 + 2t^3u^3 + u^6 + t^2u^2$$

$$M_F(t, u)_4 = (t^{12}u^9 + t^9u^{12} + 2t^{11}u^8 + 2t^8u^{11} - t^{12}u^6 - t^6u^{12} + 5t^{10}u^7 + 5t^7u^{10} + t^{12}u^3 + 7t^9u^6 + 7t^6u^9 + t^3u^{12} + t^{11}u^2 + 10t^8u^5 + 10t^5u^8 + t^2u^{11} + 4t^6u^6 + t^{10}u + 10t^7u^4 + 10t^4u^7 + tu^{10} + t^9 + 7t^6u^3 + 7t^3u^6 + u^9 + 5t^5u^2 + 5t^2u^5 - t^6 - u^6 + 2t^4u + 2tu^4 + t^3 + u^3)(u^2 + 1)(u^4 - u^2 + 1)(t^2 + 1)(t^4 - t^2 + 1)$$

$$M_F(t, u)_5 = M_F(t, u)_7 = M_F(t, u)_9 = t^{17}u^{16} + t^{15}u^{17} + 3t^{16}u^{15} + t^{13}u^{18} + t^{17}u^{13} + 2t^{14}u^{16} + 2t^{18}u^{11} + 6t^{15}u^{14} + 3t^{12}u^{17} + 3t^{16}u^{12} + 4t^{13}u^{15} + 3t^{17}u^{10} + 10t^{14}u^{13} + 6t^{11}u^{16} + 4t^{15}u^{11} + 6t^{12}u^{14} + t^9u^{17} + 6t^{16}u^9 + 14t^{13}u^{12} + 9t^{10}u^{15} + 2t^7u^{18} + 2t^{17}u^7 + 6t^{14}u^{10} + 8t^{11}u^{13} + 3t^8u^{16} + t^{18}u^5 + 9t^{15}u^8 + 16t^{12}u^{11} + 12t^9u^{14} + 3t^6u^{17} + 3t^{16}u^6 + 7t^{13}u^9 + 9t^{10}u^{12} + 4t^7u^{15} + 2t^{17}u^4 + 12t^{14}u^7 + 18t^{11}u^{10} + 15t^8u^{13} + 5t^5u^{16} + 4t^{15}u^5 + 9t^{12}u^8 + 10t^9u^{11} + 6t^6u^{14} + t^3u^{17} + 3t^{16}u^3 + 14t^{13}u^6 + 18t^{10}u^9 + 16t^7u^{12} + 6t^4u^{15} + 4t^{14}u^4 + 8t^{11}u^7 + 9t^8u^{10} + 6t^5u^{13} + t^2u^{16} + 3t^{15}u^2 + 14t^{12}u^5 + 18t^9u^8 + 16t^6u^{11} + 6t^3u^{14} + 4t^{13}u^3 + 9t^{10}u^6 + 10t^7u^9 + 6t^4u^{12} + tu^{15} + 2t^{14}u + 12t^{11}u^4 + 18t^8u^7 + 15t^5u^{10} + 5t^2u^{13} + 3t^{12}u^2 + 7t^9u^5 + 9t^6u^8 + 4t^3u^{11} + t^{13} + 9t^{10}u^3 + 16t^7u^6 + 12t^4u^9 + 3tu^{12} + 2t^{11}u + 6t^8u^4 + 8t^5u^7 + 3t^2u^{10} + 6t^9u^2 + 14t^6u^5 + 9t^3u^8 + 2u^{11} + 4t^7u^3 + 6t^4u^6 + tu^9 + 3t^8u + 10t^5u^4 + 6t^2u^7 + 3t^6u^2 + 4t^3u^5 + 2t^7 + 6t^4u^3 + 3tu^6 + t^5u + 2t^2u^4 + 3t^3u^2 + u^5 + tu^3 + t^2u$$

$$M_F(t, u)_6 = M_F(t, u)_8 = M_F(t, u)_{10} = M_F(u, t)_5$$

$$M_F(t, u)_{11} = t^{18}u^{17} + t^{17}u^{16} + 3t^{16}u^{15} + 2t^{13}u^{18} + 2t^{17}u^{13} + 2t^{14}u^{16} + 6t^{15}u^{14} + 2t^{12}u^{17} + 3t^{16}u^{12} + 3t^{13}u^{15} + 3t^{17}u^{10} + 10t^{14}u^{13} + 6t^{11}u^{16} + 6t^{15}u^{11} + 6t^{12}u^{14} + 3t^9u^{17} + 6t^{16}u^9 + 13t^{13}u^{12} + 9t^{10}u^{15} + 6t^{14}u^{10} + 6t^{11}u^{13} + 3t^8u^{16} + 2t^{18}u^5 + 9t^{15}u^8 + 18t^{12}u^{11} + 12t^9u^{14} + 2t^6u^{17} + 3t^{16}u^6 + 9t^{13}u^9 + 9t^{10}u^{12} + 6t^7u^{15} + 2t^{17}u^4 + 12t^{14}u^7 + 18t^{11}u^{10} + 15t^8u^{13} + 5t^5u^{16} + 3t^{15}u^5 + 9t^{12}u^8 + 6t^9u^{11} + 6t^6u^{14} + 3t^{16}u^3 + 13t^{13}u^6 + 18t^{10}u^9 + 18t^7u^{12} + 6t^4u^{15} + tu^{18} + t^{17}u + 4t^{14}u^4 + 12t^{11}u^7 + 9t^8u^{10} + 7t^5u^{13} + t^2u^{16} + 3t^{15}u^2 + 13t^{12}u^5 + 18t^9u^8 + 18t^6u^{11} + 6t^3u^{14} + u^{17} + 3t^{13}u^3 + 9t^{10}u^6 + 6t^7u^9 + 6t^4u^{12} + 2t^{14}u + 12t^{11}u^4 + 18t^8u^7 + 15t^5u^{10} + 5t^2u^{13} + 3t^{12}u^2 + 9t^9u^5 + 9t^6u^8 + 6t^3u^{11} + 2t^{13} + 9t^{10}u^3 + 18t^7u^6 + 12t^4u^9 + 2tu^{12} + 6t^8u^4 + 6t^5u^7 + 3t^2u^{10} + 6t^9u^2 + 13t^6u^5 + 9t^3u^8 + 6t^7u^3 + 6t^4u^6 + 3tu^9 + 3t^8u + 10t^5u^4 + 6t^2u^7 + 3t^6u^2 + 3t^3u^5 + 6t^4u^3 + 2tu^6 + 2t^5u + 2t^2u^4 + 3t^3u^2 + 2u^5 + t^2u + t$$

$$M_F(t, u)_{12} = M_F(u, t)_{11}$$

$$M_F(t, u)_{13} = (t^{10}u^{12} + t^{11}u^{10} + 2t^{12}u^8 + 3t^9u^{11} + 3t^{10}u^9 + 5t^{11}u^7 + 8t^8u^{10} + 6t^9u^8 + 3t^6u^{11} + 10t^{10}u^6 + 15t^7u^9 + 2t^4u^{12} + 2t^{11}u^4 + 10t^8u^7 + 5t^5u^{10} + t^{12}u^2 + 15t^9u^5 + 20t^6u^8 + 3t^3u^{11} + 3t^{10}u^3 + 15t^7u^6 + 6t^4u^9 + t^{11}u + 16t^8u^4 + 25t^5u^7 + 4t^2u^{10} + 3t^9u^2 + 15t^6u^5 + 6t^3u^8 + t^{10} + 15t^7u^3 + 20t^4u^6 + 3tu^9 + 2t^8u + 10t^5u^4 + 5t^2u^7 + 10t^6u^2 + 15t^3u^5 + 2u^8 + 6t^4u^3 + 3tu^6 + 5t^5u + 8t^2u^4 + 3t^3u^2 + 2t^4 + 3tu^3 + t^2u + u^2) (u^2 + 1) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1)$$

$$M_F(t, u)_{14} = M_F(u, t)_{13}$$

$$M_F(t, u)_{15} = (tu^2 + t^2 + u) (t^2u^2 + tu + 1) (t^2u + u^2 + t) (u^2 + 1) (u^4 - u^2 + 1) (u + 1)^2 (u^2 - u + 1)^2 (t^2 + 1) (t^4 - t^2 + 1) (t + 1)^2 (t^2 - t + 1)^2$$

The Poincaré series of the invariant ring is

$$P_F(t, 0)_0 = P_F(0, t)_0 = \frac{-t^{18} + t^{15} - t^9 + t^3 - 1}{(t - 1)^3 (t^2 + t + 1)^3 (t^2 + 1) (t^4 - t^2 + 1) (t + 1)^2 (t^2 - t + 1)^2}.$$

3 Type G

$$D_G(t) = (t - 1)^3 (t^6 - t^3 + 1) (t^2 + t + 1)^3 (t + 1)^2 (t^2 + 1) (t^4 - t^2 + 1) (t^2 - t + 1)^2 (t^6 + t^3 + 1)^2$$

$$M_G(t, u)_0 = t^{36}u^{36} + t^{35}u^{35} + t^{34}u^{34} + 2t^{33}u^{33} + 3t^{32}u^{32} + t^{33}u^{30} + t^{30}u^{33} + t^{34}u^{28} + 4t^{31}u^{31} + t^{28}u^{34} + t^{35}u^{26} + t^{32}u^{29} + t^{29}u^{32} + t^{26}u^{35} + 2t^{33}u^{27} + 7t^{30}u^{30} + 2t^{27}u^{33} + 2t^{34}u^{25} + 3t^{31}u^{28} + 3t^{28}u^{31} + 2t^{25}u^{34} + 4t^{32}u^{26} + 10t^{29}u^{29} + 4t^{26}u^{32} + 4t^{33}u^{24} + 5t^{30}u^{27} + 5t^{27}u^{30} + 4t^{24}u^{33} + 2t^{34}u^{22} + 7t^{31}u^{25} + 14t^{28}u^{28} + 7t^{25}u^{31} + 2t^{22}u^{34} + t^{35}u^{20} + 7t^{32}u^{23} + 8t^{29}u^{26} + 8t^{26}u^{29} + 7t^{23}u^{32} + t^{20}u^{35} + t^{36}u^{18} + 3t^{33}u^{21} + 10t^{30}u^{24} + 19t^{27}u^{27} + 10t^{24}u^{30} + 3t^{21}u^{33} + t^{18}u^{36} + 2t^{34}u^{19} + 10t^{31}u^{22} + 12t^{28}u^{25} + 12t^{25}u^{28} + 10t^{22}u^{31} + 2t^{19}u^{34} + 3t^{35}u^{17} + 6t^{32}u^{20} + 15t^{29}u^{23} + 24t^{26}u^{26} + 15t^{23}u^{29} + 6t^{20}u^{32} + 3t^{17}u^{35} + 3t^{33}u^{18} + 13t^{30}u^{21} + 17t^{27}u^{24} + 17t^{24}u^{27} + 13t^{21}u^{30} + 3t^{18}u^{33} + 5t^{34}u^{16} + 9t^{31}u^{19} + 20t^{28}u^{22} + 30t^{25}u^{25} + 20t^{22}u^{28} + 9t^{19}u^{31} + 5t^{16}u^{34} + 6t^{32}u^{17} + 19t^{29}u^{20} + 21t^{26}u^{23} + 21t^{23}u^{26} + 19t^{20}u^{29} + 6t^{17}u^{32} + 7t^{33}u^{15} + 12t^{30}u^{18} + 26t^{27}u^{21} + 37t^{24}u^{24} + 26t^{21}u^{27} + 12t^{18}u^{30} + 7t^{15}u^{33} + t^{34}u^{13} + 9t^{31}u^{16} + 23t^{28}u^{19} + 26t^{25}u^{22} + 26t^{22}u^{25} + 23t^{19}u^{28} + 9t^{16}u^{31} + t^{13}u^{34} + 2t^{35}u^{11} + 9t^{32}u^{14} + 15t^{29}u^{17} + 32t^{26}u^{20} + 44t^{23}u^{23} + 32t^{20}u^{26} + 15t^{17}u^{29} + 9t^{14}u^{32} + 2t^{11}u^{35} + 2t^{33}u^{12} + 11t^{30}u^{15} + 27t^{27}u^{18} + 31t^{24}u^{21} + 31t^{21}u^{24} + 27t^{18}u^{27} + 11t^{15}u^{30} + 2t^{12}u^{33} + 3t^{34}u^{10} + 11t^{31}u^{13} + 19t^{28}u^{16} + 38t^{25}u^{19} + 49t^{22}u^{22} + 38t^{19}u^{25} + 19t^{16}u^{28} + 11t^{13}u^{31} + 3t^{10}u^{34} + t^{35}u^8 + 2t^{32}u^{11} + 15t^{29}u^{14} + 31t^{26}u^{17} + 34t^{23}u^{20} + 34t^{20}u^{23} + 31t^{17}u^{26} + 15t^{14}u^{29} + 2t^{11}u^{32} + t^8u^{35} + 4t^{33}u^9 + 14t^{30}u^{12} + 22t^{27}u^{15} + 42t^{24}u^{18} + 56t^{21}u^{21} + 42t^{18}u^{24} + 22t^{15}u^{27} + 14t^{12}u^{30} + 4t^9u^{33} + t^3u^7 + 3t^{31}u^{10} + 17t^{28}u^{13} + 34t^{25}u^{16} + 38t^{22}u^{19} + 38t^{19}u^{22} + 34t^{16}u^{25} + 17t^{13}u^{28} + 3t^{10}u^{31} + t^7u^{34} + 5t^{32}u^8 + 15t^{29}u^{11} + 26t^{26}u^{14} + 46t^{23}u^{17} + 59t^{20}u^{20} + 46t^{17}u^{23} + 26t^{14}u^{26} + 15t^{11}u^{29} + 5t^8u^{32} + 2t^{33}u^6 + 4t^{30}u^9 + 19t^{27}u^{12} + 35t^{24}u^{15} + 42t^{21}u^{18} + 42t^{18}u^{21} + 35t^{15}u^{24} + 19t^{12}u^{27} + 4t^9u^{30} + 2t^6u^{33} + 5t^{31}u^7 + 16t^{28}u^{10} + 28t^{25}u^{13} + 47t^{22}u^{16} + 63t^{19}u^{19} + 47t^{16}u^{22} + 28t^{13}u^{25} + 16t^{10}u^{28} + 5t^7u^{31} + 2t^{32}u^5 + 4t^{29}u^8 + 20t^{26}u^{11} + 37t^{23}u^{14} + 41t^{20}u^{17} + 41t^{17}u^{20} + 37t^{14}u^{23} + 20t^{11}u^{26} + 4t^8u^{29} + 2t^5u^{32} + t^3u^6 + 5t^{30}u^9 + 17t^{27}u^{12} + 29t^{24}u^{15} + 48t^{21}u^{18} + 64t^{18}u^{21} + 48t^{15}u^{24} + 29t^{12}u^{27} + 17t^9u^{30} + 5t^6u^{33} + u^3 + 2t^{31}u^4 + 4t^{28}u^7 + 20t^{25}u^{10} + 37t^{22}u^{13} + 41t^{19}u^{16} + 41t^{16}u^{19} + 37t^{13}u^{22} + 20t^{10}u^{25} + 4t^7u^{28} + 2t^4u^{31} + 5t^{29}u^5 + 16t^{26}u^8 + 28t^{23}u^{11} + 47t^{20}u^{14} + 63t^{17}u^{17} + 47t^{14}u^{20} + 28t^{11}u^{23} + 16t^8u^{26} + 5t^5u^{29} + 2t^{30}u^3 + 4t^{27}u^6 + 19t^{24}u^9 + 35t^{21}u^{12} + 42t^{18}u^{15} + 42t^{15}u^{18} + 35t^{12}u^{21} + 19t^9u^{24} +$$

$$\begin{aligned}
& 4t^6u^{27} + 2t^3u^{30} + 5t^{28}u^4 + 15t^{25}u^7 + 26t^{22}u^{10} + 46t^{19}u^{13} + 59t^{16}u^{16} + 46t^{13}u^{19} + 26t^{10}u^{22} + 15t^7u^{25} + \\
& 5t^4u^{28} + t^{29}u^2 + 3t^{26}u^5 + 17t^{23}u^8 + 34t^{20}u^{11} + 38t^{17}u^{14} + 38t^{14}u^{17} + 34t^{11}u^{20} + 17t^8u^{23} + 3t^5u^{26} + t^2u^{29} + \\
& 4t^{27}u^3 + 14t^{24}u^6 + 22t^{21}u^9 + 42t^{18}u^{12} + 56t^{15}u^{15} + 42t^{12}u^{18} + 22t^9u^{21} + 14t^6u^{24} + 4t^3u^{27} + t^{28}u + 2t^{25}u^4 + \\
& 15t^{22}u^7 + 31t^{19}u^{10} + 34t^{16}u^{13} + 34t^{13}u^{16} + 31t^{10}u^{19} + 15t^7u^{22} + 2t^4u^{25} + tu^{28} + 3t^{26}u^2 + 11t^{23}u^5 + \\
& 19t^{20}u^8 + 38t^{17}u^{11} + 49t^{14}u^{14} + 38t^{11}u^{17} + 19t^8u^{20} + 11t^5u^{23} + 3t^2u^{26} + 2t^{24}u^3 + 11t^{21}u^6 + 27t^{18}u^9 + \\
& 31t^{15}u^{12} + 31t^{12}u^{15} + 27t^9u^{18} + 11t^6u^{21} + 2t^3u^{24} + 2t^{25}u + 9t^{22}u^4 + 15t^{19}u^7 + 32t^{16}u^{10} + 44t^{13}u^{13} + \\
& 32t^{10}u^{16} + 15t^7u^{19} + 9t^4u^{22} + 2tu^{25} + t^{23}u^2 + 9t^{20}u^5 + 23t^{17}u^8 + 26t^{14}u^{11} + 26t^{11}u^{14} + 23t^8u^{17} + 9t^5u^{20} + \\
& t^2u^{23} + 7t^{21}u^3 + 12t^{18}u^6 + 26t^{15}u^9 + 37t^{12}u^{12} + 26t^9u^{15} + 12t^6u^{18} + 7t^3u^{21} + 6t^{19}u^4 + 19t^{16}u^7 + 21t^{13}u^{10} + \\
& 21t^{10}u^{13} + 19t^7u^{16} + 6t^4u^{19} + 5t^{20}u^2 + 9t^{17}u^5 + 20t^{14}u^8 + 30t^{11}u^{11} + 20t^8u^{14} + 9t^5u^{17} + 5t^2u^{20} + 3t^{18}u^3 + \\
& 13t^{15}u^6 + 17t^{12}u^9 + 17t^9u^{12} + 13t^6u^{15} + 3t^3u^{18} + 3t^{19}u + 6t^{16}u^4 + 15t^{13}u^7 + 24t^{10}u^{10} + 15t^7u^{13} + 6t^4u^{16} + \\
& 3tu^{19} + 2t^{17}u^2 + 10t^{14}u^5 + 12t^{11}u^8 + 12t^8u^{11} + 10t^5u^{14} + 2t^2u^{17} + t^{18} + 3t^{15}u^3 + 10t^{12}u^6 + 19t^9u^9 + \\
& 10t^6u^{12} + 3t^3u^{15} + u^{18} + t^{16}u + 7t^{13}u^4 + 8t^{10}u^7 + 8t^7u^{10} + 7t^4u^{13} + tu^{16} + 2t^{14}u^2 + 7t^{11}u^5 + 14t^8u^8 + 7t^5u^{11} + \\
& 2t^2u^{14} + 4t^{12}u^3 + 5t^9u^6 + 5t^6u^9 + 4t^3u^{12} + 4t^{10}u^4 + 10t^7u^7 + 4t^4u^{10} + 2t^{11}u^2 + 3t^8u^5 + 3t^5u^8 + 2t^2u^{11} + \\
& 2t^9u^3 + 7t^6u^6 + 2t^3u^9 + t^{10}u + t^7u^4 + t^4u^7 + tu^{10} + t^8u^2 + 4t^5u^5 + t^2u^8 + t^6u^3 + t^3u^6 + 3t^4u^4 + 2t^3u^3 + t^2u^2 + tu + 1
\end{aligned}$$

$$\begin{aligned}
M_G(t, u)_1 = & t^{35}u^{32} + t^{30}u^{36} + t^{34}u^{31} + t^{32}u^{32} + 2t^{29}u^{35} + 2t^{33}u^{30} + t^{34}u^{28} + 2t^{31}u^{31} + 3t^{28}u^{34} + 4t^{32}u^{29} + \\
& t^{29}u^{32} + 2t^{36}u^{24} + 2t^{33}u^{27} + 3t^{30}u^{30} + 5t^{27}u^{33} + t^{34}u^{25} + 6t^{31}u^{28} + 3t^{28}u^{31} + t^{25}u^{34} + 3t^{35}u^{23} + 4t^{32}u^{26} + \\
& 5t^{29}u^{29} + 7t^{26}u^{32} + t^{23}u^{35} + 2t^{33}u^{24} + 8t^{30}u^{27} + 5t^{27}u^{30} + 3t^{24}u^{33} + 5t^{34}u^{22} + 7t^{31}u^{25} + 9t^{28}u^{28} + 10t^{25}u^{31} + \\
& 3t^{22}u^{34} + 4t^{32}u^{23} + 12t^{29}u^{26} + 8t^{26}u^{29} + 3t^{23}u^{32} + 2t^{20}u^{35} + 8t^{33}u^{21} + 10t^{30}u^{24} + 13t^{27}u^{27} + 15t^{24}u^{30} + \\
& 5t^{21}u^{33} + t^{34}u^{19} + 7t^{31}u^{22} + 16t^{28}u^{25} + 12t^{25}u^{28} + 6t^{22}u^{31} + 3t^{19}u^{34} + 2t^{35}u^{17} + 11t^{32}u^{20} + 13t^{29}u^{23} + \\
& 19t^{26}u^{26} + 20t^{23}u^{29} + 8t^{20}u^{32} + 3t^{33}u^{18} + 11t^{30}u^{21} + 20t^{27}u^{24} + 17t^{24}u^{27} + 9t^{21}u^{30} + 6t^{18}u^{33} + 4t^{34}u^{16} + \\
& 14t^{31}u^{19} + 18t^{28}u^{22} + 25t^{25}u^{25} + 25t^{22}u^{28} + 11t^{19}u^{31} + 2t^{16}u^{34} + t^{35}u^{14} + 3t^{32}u^{17} + 15t^{29}u^{20} + 26t^{26}u^{23} + \\
& 22t^{23}u^{26} + 12t^{20}u^{29} + 8t^{17}u^{32} + t^{14}u^{35} + 6t^{33}u^{15} + 19t^{30}u^{18} + 23t^{27}u^{21} + 30t^{24}u^{24} + 32t^{21}u^{27} + 15t^{18}u^{30} + \\
& 3t^{15}u^{33} + 2t^{12}u^{36} + 2t^{34}u^{13} + 6t^{31}u^{16} + 19t^{28}u^{19} + 31t^{25}u^{22} + 27t^{22}u^{25} + 16t^{19}u^{28} + 11t^{16}u^{31} + 2t^{13}u^{34} + \\
& 8t^{32}u^{14} + 23t^{29}u^{17} + 29t^{26}u^{20} + 36t^{23}u^{23} + 37t^{20}u^{26} + 20t^{17}u^{29} + 5t^{14}u^{32} + 2t^{11}u^{35} + 4t^{33}u^{12} + 9t^{30}u^{15} + \\
& 24t^{27}u^{18} + 35t^{24}u^{21} + 33t^{21}u^{24} + 21t^{18}u^{27} + 13t^{15}u^{30} + 3t^{12}u^{33} + t^{34}u^{10} + 10t^{31}u^{13} + 27t^{28}u^{16} + 35t^{25}u^{19} + \\
& 41t^{22}u^{22} + 43t^{19}u^{25} + 24t^{16}u^{28} + 7t^{13}u^{31} + 3t^{10}u^{34} + t^{35}u^8 + 5t^{32}u^{11} + 11t^{29}u^{14} + 28t^{26}u^{17} + 42t^{23}u^{20} + \\
& 36t^{20}u^{23} + 24t^{17}u^{26} + 16t^{14}u^{29} + 5t^{11}u^{32} + t^{36}u^6 + t^{33}u^9 + 12t^{30}u^{12} + 31t^{27}u^{15} + 39t^{24}u^{18} + 45t^{21}u^{21} + \\
& 47t^{18}u^{24} + 28t^{15}u^{27} + 9t^{12}u^{30} + 4t^9u^{33} + t^{34}u^7 + 6t^{31}u^{10} + 13t^{28}u^{13} + 31t^{25}u^{16} + 46t^{22}u^{19} + 40t^{19}u^{22} + \\
& 27t^{16}u^{25} + 18t^{13}u^{28} + 6t^{10}u^{31} + t^{35}u^5 + 2t^{32}u^8 + 15t^{29}u^{11} + 33t^{26}u^{14} + 42t^{23}u^{17} + 49t^{20}u^{20} + 52t^{17}u^{23} + \\
& 31t^{14}u^{26} + 10t^{11}u^{29} + 5t^8u^{32} + t^5u^{35} + t^{33}u^6 + 7t^{30}u^9 + 16t^{27}u^{12} + 33t^{24}u^{15} + 48t^{21}u^{18} + 42t^{18}u^{21} + \\
& 31t^{15}u^{24} + 19t^{12}u^{27} + 7t^9u^{30} + t^{34}u^4 + 2t^{31}u^7 + 16t^{28}u^{10} + 35t^{25}u^{13} + 43t^{22}u^{16} + 53t^{19}u^{19} + 53t^{16}u^{22} + \\
& 33t^{13}u^{25} + 11t^{10}u^{28} + 5t^7u^{31} + t^4u^{34} + 2t^{32}u^5 + 8t^{29}u^8 + 16t^{26}u^{11} + 35t^{23}u^{14} + 51t^{20}u^{17} + 43t^{17}u^{20} + \\
& 31t^{14}u^{23} + 20t^{11}u^{26} + 8t^8u^{29} + t^{33}u^3 + 2t^{30}u^6 + 17t^{27}u^9 + 36t^{24}u^{12} + 43t^{21}u^{15} + 54t^{18}u^{18} + 55t^{15}u^{21} + \\
& 32t^{12}u^{24} + 11t^9u^{27} + 6t^6u^{30} + t^3u^{33} + 2t^{31}u^4 + 8t^{28}u^7 + 16t^{25}u^{10} + 35t^{22}u^{13} + 51t^{19}u^{16} + 43t^{16}u^{19} + \\
& 31t^{13}u^{22} + 20t^{10}u^{25} + 8t^7u^{28} + t^{32}u^2 + 2t^{29}u^5 + 16t^{26}u^8 + 35t^{23}u^{11} + 43t^{20}u^{14} + 53t^{17}u^{17} + 53t^{14}u^{20} + \\
& 33t^{11}u^{23} + 11t^8u^{26} + 5t^5u^{29} + t^2u^{32} + t^{30}u^3 + 7t^{27}u^6 + 16t^{24}u^9 + 33t^{21}u^{12} + 48t^{18}u^{15} + 42t^{15}u^{18} + 31t^{12}u^{21} + \\
& 19t^9u^{24} + 7t^6u^{27} + t^{31}u + 2t^{28}u^4 + 15t^{25}u^7 + 33t^{22}u^{10} + 42t^{19}u^{13} + 49t^{16}u^{16} + 52t^{13}u^{19} + 31t^{10}u^{22} + \\
& 10t^7u^{25} + 5t^4u^{28} + tu^{31} + t^{29}u^2 + 6t^{26}u^5 + 13t^{23}u^8 + 31t^{20}u^{11} + 46t^{17}u^{14} + 40t^{14}u^{17} + 27t^{11}u^{20} + 18t^8u^{23} + \\
& 6t^5u^{26} + t^{30} + t^{27}u^3 + 12t^{24}u^6 + 31t^{21}u^9 + 39t^{18}u^{12} + 45t^{15}u^{15} + 47t^{12}u^{18} + 28t^9u^{21} + 9t^6u^{24} + 4t^3u^{27} + \\
& t^{28}u + 5t^{25}u^4 + 11t^{22}u^7 + 28t^{19}u^{10} + 42t^{16}u^{13} + 36t^{13}u^{16} + 24t^{10}u^{19} + 16t^7u^{22} + 5t^4u^{25} + t^{26}u^2 + 10t^{23}u^5 + \\
& 27t^{20}u^8 + 35t^{17}u^{11} + 41t^{14}u^{14} + 43t^{11}u^{17} + 24t^8u^{20} + 7t^5u^{23} + 3t^2u^{26} + 4t^{24}u^3 + 9t^{21}u^6 + 24t^{18}u^9 + \\
& 35t^{15}u^{12} + 33t^{12}u^{15} + 21t^9u^{18} + 13t^6u^{21} + 3t^3u^{24} + 8t^{22}u^4 + 23t^{19}u^7 + 29t^{16}u^{10} + 36t^{13}u^{13} + 37t^{10}u^{16} + \\
& 20t^7u^{19} + 5t^4u^{22} + 2tu^{25} + 2t^{23}u^2 + 6t^{20}u^5 + 19t^{17}u^8 + 31t^{14}u^{11} + 27t^{11}u^{14} + 16t^8u^{17} + 11t^5u^{20} + 2t^2u^{23} + \\
& 6t^{21}u^3 + 19t^{18}u^6 + 23t^{15}u^9 + 30t^{12}u^{12} + 32t^9u^{15} + 15t^6u^{18} + 3t^3u^{21} + 2u^{24} + t^{22}u + 3t^{19}u^4 + 15t^{16}u^7 + \\
& 26t^{13}u^{10} + 22t^{10}u^{13} + 12t^7u^{16} + 8t^4u^{19} + tu^{22} + 4t^{20}u^2 + 14t^{17}u^5 + 18t^{14}u^8 + 25t^{11}u^{11} + 25t^8u^{14} + 11t^5u^{17} + \\
& 2t^2u^{20} + 3t^{18}u^3 + 11t^{15}u^6 + 20t^{12}u^9 + 17t^9u^{12} + 9t^6u^{15} + 6t^3u^{18} + 2t^{19}u + 11t^{16}u^4 + 13t^{13}u^7 + 19t^{10}u^{10} + \\
& 20t^7u^{13} + 8t^4u^{16} + t^{17}u^2 + 7t^{14}u^5 + 16t^{11}u^8 + 12t^8u^{11} + 6t^5u^{14} + 3t^2u^{17} + 8t^{15}u^3 + 10t^{12}u^6 + 13t^9u^9 + \\
& 15t^6u^{12} + 5t^3u^{15} + 4t^{13}u^4 + 12t^{10}u^7 + 8t^7u^{10} + 3t^4u^{13} + 2tu^{16} + 5t^{14}u^2 + 7t^{11}u^5 + 9t^8u^8 + 10t^5u^{11} + \\
& 3t^2u^{14} + 2t^{12}u^3 + 8t^9u^6 + 5t^6u^9 + 3t^3u^{12} + 3t^{13}u + 4t^{10}u^4 + 5t^7u^7 + 7t^4u^{10} + tu^{13} + t^{11}u^2 + 6t^8u^5 + 3t^5u^8 + \\
& t^2u^{11} + 2t^{12} + 2t^9u^3 + 3t^6u^6 + 5t^3u^9 + 4t^7u^4 + t^4u^7 + t^8u^2 + 2t^5u^5 + 3t^2u^8 + 2t^6u^3 + t^4u^4 + 2tu^7 + t^5u^2 + u^6 + t^4u
\end{aligned}$$

$$M_G(t, u)_2 = M_G(u, t)_1$$

$$M_G(t, u)_3 = (t^{29}u^{26} + t^{26}u^{29} + 2t^{28}u^{25} + 2t^{25}u^{28} + t^{29}u^{23} + t^{23}u^{29} + 4t^{27}u^{24} + 4t^{24}u^{27} + 2t^{28}u^{22} + 2t^{25}u^{25} +$$

$$\begin{aligned}
& 2t^{22}u^{28} + 6t^{26}u^{23} + 6t^{23}u^{26} + 5t^{27}u^{21} + 4t^{24}u^{24} + 5t^{21}u^{27} + 2t^{28}u^{19} + 9t^{25}u^{22} + 9t^{22}u^{25} + 2t^{19}u^{28} + t^{29}u^{17} + \\
& 8t^{26}u^{20} + 6t^{23}u^{23} + 8t^{20}u^{26} + t^{17}u^{29} + 3t^{30}u^{15} + 3t^{27}u^{18} + 13t^{24}u^{21} + 13t^{21}u^{24} + 3t^{18}u^{27} + 3t^{15}u^{30} + \\
& 2t^{28}u^{16} + 11t^{25}u^{19} + 10t^{22}u^{22} + 11t^{19}u^{25} + 2t^{16}u^{28} + 4t^{29}u^{14} + 6t^{26}u^{17} + 18t^{23}u^{20} + 18t^{20}u^{23} + 6t^{17}u^{26} + \\
& 4t^{14}u^{29} + 3t^{27}u^{15} + 15t^{24}u^{18} + 12t^{21}u^{21} + 15t^{18}u^{24} + 3t^{15}u^{27} + 6t^{28}u^{13} + 9t^{25}u^{16} + 22t^{22}u^{19} + 22t^{19}u^{22} + \\
& 9t^{16}u^{25} + 6t^{13}u^{28} + 6t^{26}u^{14} + 19t^{23}u^{17} + 14t^{20}u^{20} + 19t^{17}u^{23} + 6t^{14}u^{26} + 9t^{27}u^{12} + 9t^{24}u^{15} + 27t^{21}u^{18} + \\
& 27t^{18}u^{21} + 9t^{15}u^{24} + 9t^{12}u^{27} + t^{28}u^{10} + 9t^{25}u^{13} + 22t^{22}u^{16} + 16t^{19}u^{19} + 22t^{16}u^{22} + 9t^{13}u^{25} + t^{10}u^{28} + t^{29}u^8 + \\
& 11t^{26}u^{11} + 11t^{23}u^{14} + 29t^{20}u^{17} + 29t^{17}u^{20} + 11t^{14}u^{23} + 11t^{11}u^{26} + t^8u^{29} + 3t^{27}u^9 + 12t^{24}u^{12} + 24t^{21}u^{15} + \\
& 18t^{18}u^{18} + 24t^{15}u^{21} + 12t^{12}u^{24} + 3t^9u^{27} + 2t^{28}u^7 + 13t^{25}u^{10} + 14t^{22}u^{13} + 31t^{19}u^{16} + 31t^{16}u^{19} + 14t^{13}u^{22} + \\
& 13t^{10}u^{25} + 2t^7u^{28} + t^{29}u^5 + 3t^{26}u^8 + 15t^{23}u^{11} + 26t^{20}u^{14} + 16t^{17}u^{17} + 26t^{14}u^{20} + 15t^{11}u^{23} + 3t^8u^{26} + \\
& t^5u^{29} + 2t^{27}u^6 + 17t^{24}u^9 + 15t^{21}u^{12} + 33t^{18}u^{15} + 33t^{15}u^{18} + 15t^{12}u^{21} + 17t^9u^{24} + 2t^6u^{27} + t^{28}u^4 + 4t^{25}u^7 + \\
& 17t^{22}u^{10} + 27t^{19}u^{13} + 16t^{16}u^{16} + 27t^{13}u^{19} + 17t^{10}u^{22} + 4t^7u^{25} + t^4u^{28} + 3t^{26}u^5 + 17t^{23}u^8 + 18t^{20}u^{11} + \\
& 35t^{17}u^{14} + 35t^{14}u^{17} + 18t^{11}u^{20} + 17t^8u^{23} + 3t^5u^{26} + t^{27}u^3 + 5t^{24}u^6 + 16t^{21}u^9 + 27t^{18}u^{12} + 18t^{15}u^{15} + \\
& 27t^{12}u^{18} + 16t^9u^{21} + 5t^6u^{24} + t^3u^{27} + 3t^{25}u^4 + 17t^{22}u^7 + 18t^{19}u^{10} + 35t^{16}u^{13} + 35t^{13}u^{16} + 18t^{10}u^{19} + \\
& 17t^7u^{22} + 3t^4u^{25} + t^{26}u^2 + 4t^{23}u^5 + 17t^{20}u^8 + 27t^{17}u^{11} + 16t^{14}u^{14} + 27t^{11}u^{17} + 17t^8u^{20} + 4t^5u^{23} + t^2u^{26} + \\
& 2t^{24}u^3 + 17t^{21}u^6 + 15t^{18}u^9 + 33t^{15}u^{12} + 33t^{12}u^{15} + 15t^9u^{18} + 17t^6u^{21} + 2t^3u^{24} + t^{25}u + 3t^{22}u^4 + 15t^{19}u^7 + \\
& 26t^{16}u^{10} + 16t^{13}u^{13} + 26t^{10}u^{16} + 15t^7u^{19} + 3t^4u^{22} + tu^{25} + 2t^{23}u^2 + 13t^{20}u^5 + 14t^{17}u^8 + 31t^{14}u^{11} + 31t^{11}u^{14} + \\
& 14t^8u^{17} + 13t^5u^{20} + 2t^2u^{23} + 3t^{21}u^3 + 12t^{18}u^6 + 24t^{15}u^9 + 18t^{12}u^{12} + 24t^9u^{15} + 12t^6u^{18} + 3t^3u^{21} + t^{22}u + \\
& 11t^{19}u^4 + 11t^{16}u^7 + 29t^{13}u^{10} + 29t^{10}u^{13} + 11t^7u^{16} + 11t^4u^{19} + tu^{22} + t^{20}u^2 + 9t^{17}u^5 + 22t^{14}u^8 + 16t^{11}u^{11} + \\
& 22t^8u^{14} + 9t^5u^{17} + t^2u^{20} + 9t^{18}u^3 + 9t^{15}u^6 + 27t^{12}u^9 + 27t^9u^{12} + 9t^6u^{15} + 9t^3u^{18} + 6t^{16}u^4 + 19t^{13}u^7 + \\
& 14t^{10}u^{10} + 19t^7u^{13} + 6t^4u^{16} + 6t^{17}u^2 + 9t^{14}u^5 + 22t^{11}u^8 + 22t^8u^{11} + 9t^5u^{14} + 6t^2u^{17} + 3t^{15}u^3 + 15t^{12}u^6 + \\
& 12t^9u^9 + 15t^6u^{12} + 3t^3u^{15} + 4t^{16}u + 6t^{13}u^4 + 18t^{10}u^7 + 18t^7u^{10} + 6t^4u^{13} + 4tu^{16} + 2t^{14}u^2 + 11t^{11}u^5 + \\
& 10t^8u^8 + 11t^5u^{11} + 2t^2u^{14} + 3t^{15} + 3t^{12}u^3 + 13t^9u^6 + 13t^6u^9 + 3t^3u^{12} + 3u^{15} + t^{13}u + 8t^{10}u^4 + 6t^7u^7 + \\
& 8t^4u^{10} + tu^{13} + 2t^{11}u^2 + 9t^8u^5 + 9t^5u^8 + 2t^2u^{11} + 5t^9u^3 + 4t^6u^6 + 5t^3u^9 + 6t^7u^4 + 6t^4u^7 + 2t^8u^2 + 2t^5u^5 + \\
& 2t^2u^8 + 4t^6u^3 + 4t^3u^6 + t^7u + tu^7 + 2t^5u^2 + 2t^2u^5 + t^4u + tu^4) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1) (u^2 + 1)
\end{aligned}$$

$$\begin{aligned}
M_G(t, u)_4 = & (t^{30}u^{27} + t^{29}u^{26} + t^{27}u^{27} + 2t^{28}u^{25} + t^{25}u^{28} + 2t^{26}u^{26} + t^{23}u^{29} + 4t^{27}u^{24} + t^{24}u^{27} + 2t^{21}u^{30} + \\
& t^{28}u^{22} + 4t^{25}u^{25} + 2t^{22}u^{28} + 2t^{29}u^{20} + 7t^{26}u^{23} + 3t^{23}u^{26} + 3t^{20}u^{29} + 2t^{27}u^{21} + 7t^{24}u^{24} + 3t^{21}u^{27} + \\
& 4t^{28}u^{19} + 10t^{25}u^{22} + 6t^{22}u^{25} + 5t^{19}u^{28} + 2t^{29}u^{17} + 3t^{26}u^{20} + 11t^{23}u^{23} + 6t^{20}u^{26} + 6t^{27}u^{18} + 16t^{24}u^{21} + \\
& 7t^{21}u^{24} + 8t^{18}u^{27} + 3t^{28}u^{16} + 6t^{25}u^{19} + 15t^{22}u^{22} + 9t^{19}u^{25} + t^{16}u^{28} + 9t^{26}u^{17} + 19t^{23}u^{20} + 10t^{20}u^{23} + \\
& 12t^{17}u^{26} + 2t^{14}u^{29} + 6t^{27}u^{15} + 9t^{24}u^{18} + 19t^{21}u^{21} + 12t^{18}u^{24} + 3t^{15}u^{27} + 2t^{28}u^{13} + 12t^{25}u^{16} + 23t^{22}u^{19} + \\
& 14t^{19}u^{22} + 15t^{16}u^{25} + 4t^{13}u^{28} + t^{29}u^{11} + 9t^{26}u^{14} + 10t^{23}u^{17} + 23t^{20}u^{20} + 16t^{17}u^{23} + 3t^{14}u^{26} + 2t^{11}u^{29} + \\
& 2t^{30}u^9 + 3t^{27}u^{12} + 15t^{24}u^{15} + 28t^{21}u^{18} + 15t^{18}u^{21} + 21t^{15}u^{24} + 5t^{12}u^{27} + 2t^{28}u^{10} + 12t^{25}u^{13} + 13t^{22}u^{16} + \\
& 25t^{19}u^{19} + 19t^{16}u^{22} + 6t^{13}u^{25} + 3t^{10}u^{28} + 3t^{29}u^8 + 6t^{26}u^{11} + 20t^{23}u^{14} + 31t^{20}u^{17} + 18t^{17}u^{20} + 23t^{14}u^{23} + \\
& 8t^{11}u^{26} + 2t^{27}u^9 + 15t^{24}u^{12} + 15t^{21}u^{15} + 27t^{18}u^{18} + 21t^{15}u^{21} + 9t^{12}u^{24} + 5t^9u^{27} + 4t^{28}u^7 + 8t^{25}u^{10} + \\
& 23t^{22}u^{13} + 33t^{19}u^{16} + 20t^{16}u^{19} + 26t^{13}u^{22} + 10t^{10}u^{25} + t^7u^{28} + 4t^{26}u^8 + 18t^{23}u^{11} + 15t^{20}u^{14} + 28t^{17}u^{17} + \\
& 25t^{14}u^{20} + 10t^{11}u^{23} + 7t^8u^{26} + 5t^{27}u^6 + 8t^{24}u^9 + 25t^{21}u^{12} + 36t^{18}u^{15} + 18t^{15}u^{18} + 30t^{12}u^{21} + 11t^9u^{24} + \\
& 2t^6u^{27} + t^3u^{30} + 5t^{25}u^7 + 20t^{22}u^{10} + 16t^{19}u^{13} + 28t^{16}u^{16} + 26t^{13}u^{19} + 12t^{10}u^{22} + 8t^7u^{25} + 5t^{26}u^5 + 8t^{23}u^8 + \\
& 26t^{20}u^{11} + 35t^{17}u^{14} + 20t^{14}u^{17} + 29t^{11}u^{20} + 13t^8u^{23} + 3t^5u^{26} + t^2u^{29} + t^{27}u^3 + 5t^{24}u^6 + 21t^{21}u^9 + 18t^{18}u^{12} + \\
& 27t^{15}u^{15} + 27t^{12}u^{18} + 13t^9u^{21} + 8t^6u^{24} + 5t^{25}u^4 + 8t^{22}u^7 + 26t^{19}u^{10} + 35t^{16}u^{13} + 20t^{13}u^{16} + 29t^{10}u^{19} + \\
& 13t^7u^{22} + 3t^4u^{25} + tu^{28} + 5t^{23}u^5 + 20t^{20}u^8 + 16t^{17}u^{11} + 28t^{14}u^{14} + 26t^{11}u^{17} + 12t^8u^{20} + 8t^5u^{23} + 5t^{24}u^3 + \\
& 8t^{21}u^6 + 25t^{18}u^9 + 36t^{15}u^{12} + 18t^{12}u^{15} + 30t^9u^{18} + 11t^6u^{21} + 2t^3u^{24} + u^{27} + 4t^{22}u^4 + 18t^{19}u^7 + 15t^{16}u^{10} + \\
& 28t^{13}u^{13} + 25t^{10}u^{16} + 10t^7u^{19} + 7t^4u^{22} + 4t^{23}u^2 + 8t^{20}u^5 + 23t^{17}u^8 + 33t^{14}u^{11} + 20t^{11}u^{14} + 26t^8u^{17} + \\
& 10t^5u^{20} + t^2u^{23} + 2t^{21}u^3 + 15t^{18}u^6 + 15t^{15}u^9 + 27t^{12}u^{12} + 21t^9u^{15} + 9t^6u^{18} + 5t^3u^{21} + 3t^{22}u + 6t^{19}u^4 + \\
& 20t^{16}u^7 + 31t^{13}u^{10} + 18t^{10}u^{13} + 23t^7u^{16} + 8t^4u^{19} + 2t^{20}u^2 + 12t^{17}u^5 + 13t^{14}u^8 + 25t^{11}u^{11} + 19t^8u^{14} + \\
& 6t^5u^{17} + 3t^2u^{20} + 2t^{21} + 3t^{18}u^3 + 15t^{15}u^6 + 28t^{12}u^9 + 15t^9u^{12} + 21t^6u^{15} + 5t^3u^{18} + t^{19}u + 9t^{16}u^4 + 10t^{13}u^7 + \\
& 23t^{10}u^{10} + 16t^7u^{13} + 3t^4u^{16} + 2tu^{19} + 2t^{17}u^2 + 12t^{14}u^5 + 23t^{11}u^8 + 14t^8u^{11} + 15t^5u^{14} + 4t^2u^{17} + 6t^{15}u^3 + \\
& 9t^{12}u^6 + 19t^9u^9 + 12t^6u^{12} + 3t^3u^{15} + 9t^{13}u^4 + 19t^{10}u^7 + 10t^7u^{10} + 12t^4u^{13} + 2tu^{16} + 3t^{14}u^2 + 6t^{11}u^5 + \\
& 15t^8u^8 + 9t^5u^{11} + t^2u^{14} + 6t^{12}u^3 + 16t^9u^6 + 7t^6u^9 + 8t^3u^{12} + 2t^{13}u + 3t^{10}u^4 + 11t^7u^7 + 6t^4u^{10} + 4t^{11}u^2 + \\
& 10t^8u^5 + 6t^5u^8 + 5t^2u^{11} + 2t^9u^3 + 7t^6u^6 + 3t^3u^9 + 2t^{10}u + 7t^7u^4 + 3t^4u^7 + 3tu^{10} + t^8u^2 + 4t^5u^5 + 2t^2u^8 + \\
& 4t^6u^3 + t^3u^6 + 2u^9 + 2t^4u^4 + tu^7 + 2t^5u^2 + t^2u^5 + t^3u^3 + t^4u + t^3) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1) (u^2 + 1)
\end{aligned}$$

$$M_G(t, u)_5 = M_G(u, t)_4$$

$$\begin{aligned}
M_G(t, u)_6 = & (t^{16}u^{16} + t^{18}u^{12} + 2t^{15}u^{15} + t^{12}u^{18} + 2t^{17}u^{11} + 4t^{14}u^{14} + 2t^{11}u^{17} - t^{18}u^9 - t^9u^{18} + 3t^{16}u^{10} + \\
& 6t^{13}u^{13} + 3t^{10}u^{16} + t^{18}u^6 + 5t^{15}u^9 + 7t^{12}u^{12} + 5t^9u^{15} + t^6u^{18} + t^{17}u^5 + 6t^{14}u^8 + 8t^{11}u^{11} + 6t^8u^{14} +
\end{aligned}$$

$$t^5u^{17} + t^{12}u^9 + t^9u^{12} + 2t^{16}u^4 + 8t^{13}u^7 + 9t^{10}u^{10} + 8t^7u^{13} + 2t^4u^{16} + 2t^{15}u^3 + 7t^{12}u^6 + 8t^9u^9 + 7t^6u^{12} + 2t^3u^{15} + 2t^{14}u^2 + 8t^{11}u^5 + 9t^8u^8 + 8t^5u^{11} + 2t^2u^{14} + t^9u^6 + t^6u^9 + t^{13}u + 6t^{10}u^4 + 8t^7u^7 + 6t^4u^{10} + tu^{13} + t^{12} + 5t^9u^3 + 7t^6u^6 + 5t^3u^9 + u^{12} + 3t^8u^2 + 6t^5u^5 + 3t^2u^8 - t^9 - u^9 + 2t^7u + 4t^4u^4 + 2tu^7 + t^6 + 2t^3u^3 + u^6 + t^2u^2) (t^6 - t^3 + 1) (u^6 - u^3 + 1) (u^6 + u^3 + 1)^2 (t^6 + t^3 + 1)^2$$

$$M_G(t, u)_7 = t^{36}u^{35} + t^{35}u^{34} + 2t^{34}u^{33} + t^{32}u^{34} + 4t^{33}u^{32} + t^{34}u^{30} + 3t^{31}u^{33} + t^{28}u^{36} + 2t^{35}u^{28} + 7t^{32}u^{31} + 2t^{29}u^{34} + t^{36}u^{26} + 3t^{33}u^{29} + 5t^{30}u^{32} + 3t^{27}u^{35} + 5t^{34}u^{27} + 11t^{31}u^{30} + 4t^{28}u^{33} + 2t^{25}u^{36} + 4t^{35}u^{25} + 6t^{32}u^{28} + 10t^{29}u^{31} + 6t^{26}u^{34} + 9t^{33}u^{26} + 19t^{30}u^{29} + 9t^{27}u^{32} + 3t^{24}u^{35} + 7t^{34}u^{24} + 12t^{31}u^{27} + 17t^{28}u^{30} + 11t^{25}u^{33} + 2t^{35}u^{22} + 16t^{32}u^{25} + 28t^{29}u^{28} + 16t^{26}u^{31} + 7t^{23}u^{34} + t^{36}u^{20} + 14t^{33}u^{23} + 20t^{30}u^{26} + 26t^{27}u^{29} + 19t^{24}u^{32} + 3t^{21}u^{35} + 6t^{34}u^{21} + 25t^{31}u^{24} + 40t^{28}u^{27} + 25t^{25}u^{30} + 13t^{22}u^{33} + 3t^{19}u^{36} + 5t^{35}u^{19} + 21t^{32}u^{22} + 30t^{29}u^{25} + 38t^{26}u^{28} + 28t^{23}u^{31} + 6t^{20}u^{34} + 3t^{36}u^{17} + 11t^{33}u^{20} + 36t^{30}u^{23} + 54t^{27}u^{26} + 37t^{24}u^{29} + 20t^{21}u^{32} + 7t^{18}u^{35} + 9t^{34}u^{18} + 30t^{31}u^{21} + 44t^{28}u^{24} + 52t^{25}u^{27} + 39t^{22}u^{30} + 11t^{19}u^{33} + t^{16}u^{36} + 6t^{35}u^{16} + 18t^{32}u^{19} + 49t^{29}u^{22} + 70t^{26}u^{25} + 52t^{23}u^{28} + 29t^{20}u^{31} + 12t^{17}u^{34} + 15t^{33}u^{17} + 42t^{30}u^{20} + 58t^{27}u^{23} + 67t^{24}u^{26} + 53t^{21}u^{29} + 18t^{18}u^{32} + 3t^{15}u^{35} + 10t^{34}u^{15} + 27t^{31}u^{18} + 66t^{28}u^{21} + 87t^{25}u^{24} + 67t^{22}u^{27} + 41t^{19}u^{30} + 19t^{16}u^{33} + t^{35}u^{13} + 23t^{32}u^{16} + 55t^{29}u^{19} + 73t^{26}u^{22} + 83t^{23}u^{25} + 69t^{20}u^{28} + 27t^{17}u^{31} + 6t^{14}u^{34} + 2t^{36}u^{11} + 15t^{33}u^{14} + 36t^{30}u^{17} + 82t^{27}u^{20} + 106t^{24}u^{23} + 84t^{21}u^{26} + 51t^{18}u^{29} + 26t^{15}u^{32} + 3t^{12}u^{35} + 5t^{34}u^{12} + 30t^{31}u^{15} + 67t^{28}u^{18} + 89t^{25}u^{21} + 100t^{22}u^{24} + 83t^{19}u^{27} + 35t^{16}u^{30} + 10t^{13}u^{33} + t^{10}u^{36} + 4t^{35}u^{10} + 20t^{32}u^{13} + 45t^{29}u^{16} + 98t^{26}u^{19} + 123t^{23}u^{22} + 101t^{20}u^{25} + 63t^{17}u^{28} + 32t^{14}u^{31} + 7t^{11}u^{34} + t^{36}u^8 + 7t^{33}u^{11} + 38t^{30}u^{14} + 79t^{27}u^{17} + 103t^{24}u^{20} + 113t^{21}u^{23} + 97t^{18}u^{26} + 45t^{15}u^{29} + 13t^{12}u^{32} + 3t^9u^{35} + 7t^{34}u^9 + 25t^{31}u^{12} + 56t^{28}u^{15} + 113t^{25}u^{18} + 138t^{22}u^{21} + 114t^{19}u^{24} + 74t^{16}u^{27} + 41t^{13}u^{30} + 9t^{10}u^{33} + t^{35}u^7 + 9t^{32}u^{10} + 47t^{29}u^{13} + 89t^{26}u^{16} + 114t^{23}u^{19} + 127t^{20}u^{22} + 109t^{17}u^{25} + 54t^{14}u^{28} + 17t^{11}u^{31} + 5t^8u^{34} + 9t^{33}u^8 + 30t^{30}u^{11} + 65t^{27}u^{14} + 124t^{24}u^{17} + 152t^{21}u^{20} + 126t^{18}u^{23} + 84t^{15}u^{26} + 47t^{12}u^{29} + 12t^9u^{32} + 2t^{34}u^6 + 12t^{31}u^9 + 52t^{28}u^{12} + 97t^{25}u^{15} + 126t^{22}u^{18} + 138t^{19}u^{21} + 117t^{16}u^{24} + 62t^{13}u^{27} + 20t^{10}u^{30} + 7t^7u^{33} + 11t^{32}u^7 + 33t^{29}u^{10} + 73t^{26}u^{13} + 130t^{23}u^{16} + 163t^{20}u^{19} + 135t^{17}u^{22} + 91t^{14}u^{25} + 51t^{11}u^{28} + 14t^8u^{31} + t^5u^{34} + 3t^{33}u^5 + 13t^{30}u^8 + 56t^{27}u^{11} + 102t^{24}u^{14} + 130t^{21}u^{17} + 145t^{18}u^{20} + 121t^{15}u^{23} + 67t^{12}u^{26} + 22t^9u^{29} + 8t^6u^{32} + 11t^{31}u^6 + 35t^{28}u^9 + 77t^{25}u^{12} + 134t^{22}u^{15} + 168t^{19}u^{18} + 136t^{16}u^{21} + 96t^{13}u^{24} + 54t^{10}u^{27} + 14t^7u^{30} + t^4u^{33} + tu^{36} + t^{35}u + 3t^{32}u^4 + 13t^{29}u^7 + 58t^{26}u^{10} + 105t^{23}u^{13} + 130t^{20}u^{16} + 146t^{17}u^{19} + 124t^{14}u^{22} + 69t^{11}u^{25} + 23t^8u^{28} + 8t^5u^{31} + 11t^{30}u^5 + 35t^{27}u^8 + 77t^{24}u^{11} + 134t^{21}u^{14} + 168t^{18}u^{17} + 136t^{15}u^{20} + 96t^{12}u^{23} + 54t^9u^{26} + 14t^6u^{29} + t^3u^{32} + u^{35} + 3t^{31}u^3 + 13t^{28}u^6 + 56t^{25}u^9 + 102t^{22}u^{12} + 130t^{19}u^{15} + 145t^{16}u^{18} + 121t^{13}u^{21} + 67t^{10}u^{24} + 22t^7u^{27} + 8t^4u^{30} + 11t^{29}u^4 + 33t^{26}u^7 + 73t^{23}u^{10} + 130t^{20}u^{13} + 163t^{17}u^{16} + 135t^{14}u^{19} + 91t^{11}u^{22} + 51t^8u^{25} + 14t^5u^{28} + t^2u^{31} + 2t^{30}u^2 + 12t^{27}u^5 + 52t^{24}u^8 + 97t^{21}u^{11} + 126t^{18}u^{14} + 138t^{15}u^{17} + 117t^{12}u^{20} + 62t^9u^{23} + 20t^6u^{26} + 7t^3u^{29} + 9t^{28}u^3 + 30t^{25}u^6 + 65t^{22}u^9 + 124t^{19}u^{12} + 152t^{16}u^{15} + 126t^{13}u^{18} + 84t^{10}u^{21} + 47t^7u^{24} + 12t^4u^{27} + t^{29}u + 9t^{26}u^4 + 47t^{23}u^7 + 89t^{20}u^{10} + 114t^{17}u^{13} + 127t^{14}u^{16} + 109t^{11}u^{19} + 54t^8u^{22} + 17t^5u^{25} + 5t^2u^{28} + 7t^{27}u^2 + 25t^{24}u^5 + 56t^{21}u^8 + 113t^{18}u^{11} + 138t^{15}u^{14} + 114t^{12}u^{17} + 74t^9u^{20} + 41t^6u^{23} + 9t^3u^{26} + t^{28} + 7t^{25}u^3 + 38t^{22}u^6 + 79t^{19}u^9 + 103t^{16}u^{12} + 113t^{13}u^{15} + 97t^{10}u^{18} + 45t^7u^{21} + 13t^4u^{24} + 3tu^{27} + 4t^{26}u + 20t^{23}u^4 + 45t^{20}u^7 + 98t^{17}u^{10} + 123t^{14}u^{13} + 101t^{11}u^{16} + 63t^8u^{19} + 32t^5u^{22} + 7t^2u^{25} + 5t^{24}u^2 + 30t^{21}u^5 + 67t^{18}u^8 + 89t^{15}u^{11} + 100t^{12}u^{14} + 83t^9u^{17} + 35t^6u^{20} + 10t^3u^{23} + u^{26} + 2t^{25} + 15t^{22}u^3 + 36t^{19}u^6 + 82t^{16}u^9 + 106t^{13}u^{12} + 84t^{10}u^{15} + 51t^7u^{18} + 26t^4u^{21} + 3tu^{24} + t^{23}u + 23t^{20}u^4 + 55t^{17}u^7 + 73t^{14}u^{10} + 83t^{11}u^{13} + 69t^8u^{16} + 27t^5u^{19} + 6t^2u^{22} + 10t^{21}u^2 + 27t^{18}u^5 + 66t^{15}u^8 + 87t^{12}u^{11} + 67t^9u^{14} + 41t^6u^{17} + 19t^3u^{20} + 15t^{19}u^3 + 42t^{16}u^6 + 58t^{13}u^9 + 67t^{10}u^{12} + 53t^7u^{15} + 18t^4u^{18} + 3tu^{21} + 6t^{20}u + 18t^{17}u^4 + 49t^{14}u^7 + 70t^{11}u^{10} + 52t^8u^{13} + 29t^5u^{16} + 12t^2u^{19} + 9t^{18}u^2 + 30t^{15}u^5 + 44t^{12}u^8 + 52t^9u^{11} + 39t^6u^{14} + 11t^3u^{17} + u^{20} + 3t^{19} + 11t^{16}u^3 + 36t^{13}u^6 + 54t^{10}u^9 + 37t^7u^{12} + 20t^4u^{15} + 7tu^{18} + 5t^{17}u + 21t^{14}u^4 + 30t^{11}u^7 + 38t^8u^{10} + 28t^5u^{13} + 6t^2u^{16} + 6t^{15}u^2 + 25t^{12}u^5 + 40t^9u^8 + 25t^6u^{11} + 13t^3u^{14} + 3u^{17} + t^{16} + 14t^{13}u^3 + 20t^{10}u^6 + 26t^7u^9 + 19t^4u^{12} + 3tu^{15} + 2t^{14}u + 16t^{11}u^4 + 28t^8u^7 + 16t^5u^{10} + 7t^2u^{13} + 7t^{12}u^2 + 12t^9u^5 + 17t^6u^8 + 11t^3u^{11} + 9t^{10}u^3 + 19t^7u^6 + 9t^4u^9 + 3tu^{12} + 4t^{11}u + 6t^8u^4 + 10t^5u^7 + 6t^2u^{10} + 5t^9u^2 + 11t^6u^5 + 4t^3u^8 + 2u^{11} + t^{10} + 3t^7u^3 + 5t^4u^6 + 3tu^9 + 2t^8u + 7t^5u^4 + 2t^2u^7 + t^6u^2 + 3t^3u^5 + u^8 + 4t^4u^3 + t^2u^4 + 2t^3u^2 + t^2u + t$$

$$M_G(t, u)_8 = t^{33}u^{35} + t^{31}u^{36} + t^{35}u^{31} + 2t^{32}u^{34} + 2t^{36}u^{29} + t^{33}u^{32} + t^{30}u^{35} + 2t^{34}u^{30} + 4t^{31}u^{33} + 4t^{35}u^{28} + 3t^{32}u^{31} + 3t^{29}u^{34} + 4t^{33}u^{29} + 8t^{30}u^{32} + t^{27}u^{35} + 7t^{34}u^{27} + 6t^{31}u^{30} + 7t^{28}u^{33} + 2t^{25}u^{36} + t^{35}u^{25} + 9t^{32}u^{28} + 13t^{29}u^{31} + 3t^{26}u^{34} + t^{36}u^{23} + 12t^{33}u^{26} + 11t^{30}u^{29} + 12t^{27}u^{32} + 6t^{24}u^{35} + 5t^{34}u^{24} + 15t^{31}u^{27} + 20t^{28}u^{30} + 7t^{25}u^{33} + t^{22}u^{36} + 4t^{35}u^{22} + 19t^{32}u^{25} + 19t^{29}u^{28} + 19t^{26}u^{31} + 10t^{23}u^{34} + 2t^{36}u^{20} + 9t^{33}u^{23} + 23t^{30}u^{26} + 30t^{27}u^{29} + 13t^{24}u^{32} + 3t^{21}u^{35} + 10t^{34}u^{21} + 27t^{31}u^{24} + 30t^{28}u^{27} + 30t^{25}u^{30} + 17t^{22}u^{33} + 5t^{35}u^{19} + 14t^{32}u^{22} + 35t^{29}u^{25} + 42t^{26}u^{28} + 21t^{23}u^{31} + 7t^{20}u^{34} + 16t^{33}u^{20} + 40t^{30}u^{23} + 44t^{27}u^{26} + 40t^{24}u^{29} + 26t^{21}u^{32} + 3t^{18}u^{35} + 9t^{34}u^{18} + 23t^{31}u^{21} + 49t^{28}u^{24} + 56t^{25}u^{27} + 31t^{22}u^{30} + 13t^{19}u^{33} + 2t^{16}u^{36} + 2t^{35}u^{16} + 25t^{32}u^{19} + 53t^{29}u^{22} + 61t^{26}u^{25} + 54t^{23}u^{28} + 36t^{20}u^{31} + 9t^{17}u^{34} + t^{36}u^{14} + 16t^{33}u^{17} + 32t^{30}u^{20} + 64t^{27}u^{23} + 72t^{24}u^{26} + 44t^{21}u^{29} +$$

$$\begin{aligned}
& 18t^{18}u^{32} + 5t^{15}u^{35} + 6t^{34}u^{15} + 34t^{31}u^{18} + 68t^{28}u^{21} + 77t^{25}u^{24} + 70t^{22}u^{27} + 49t^{19}u^{30} + 13t^{16}u^{33} + t^{13}u^{36} + \\
& 5t^{35}u^{13} + 22t^{32}u^{16} + 43t^{29}u^{19} + 81t^{26}u^{22} + 90t^{23}u^{25} + 57t^{20}u^{28} + 26t^{17}u^{31} + 9t^{14}u^{34} + 2t^{36}u^{11} + 10t^{33}u^{14} + \\
& 46t^{30}u^{17} + 84t^{27}u^{20} + 93t^{24}u^{23} + 86t^{21}u^{26} + 62t^{18}u^{29} + 20t^{15}u^{32} + 2t^{12}u^{35} + 7t^{34}u^{12} + 29t^{31}u^{15} + 57t^{28}u^{18} + \\
& 97t^{25}u^{21} + 105t^{22}u^{24} + 72t^{19}u^{27} + 35t^{16}u^{30} + 14t^{13}u^{33} + 3t^{35}u^{10} + 15t^{32}u^{13} + 57t^{29}u^{16} + 100t^{26}u^{19} + \\
& 110t^{23}u^{22} + 102t^{20}u^{25} + 75t^{17}u^{28} + 27t^{14}u^{31} + 5t^{11}u^{34} + 11t^{33}u^{11} + 36t^{30}u^{14} + 69t^{27}u^{17} + 112t^{24}u^{20} + \\
& 121t^{21}u^{23} + 87t^{18}u^{26} + 44t^{15}u^{29} + 19t^{12}u^{32} + 2t^9u^{35} + 5t^{34}u^9 + 21t^{31}u^{12} + 68t^{28}u^{15} + 113t^{25}u^{18} + \\
& 122t^{22}u^{21} + 119t^{19}u^{24} + 87t^{16}u^{27} + 33t^{13}u^{30} + 7t^{10}u^{33} + 2t^7u^{36} + 15t^{32}u^{10} + 43t^{29}u^{13} + 79t^{26}u^{16} + \\
& 125t^{23}u^{19} + 136t^{20}u^{22} + 98t^{17}u^{25} + 52t^{14}u^{28} + 23t^{11}u^{31} + 3t^8u^{34} + t^3u^5 + 7t^{33}u^8 + 25t^{30}u^{11} + 77t^{27}u^{14} + \\
& 125t^{24}u^{17} + 134t^{21}u^{20} + 130t^{18}u^{23} + 96t^{15}u^{26} + 40t^{12}u^{29} + 9t^9u^{32} + 3t^6u^{35} + t^3u^6 + 18t^{31}u^9 + 49t^{28}u^{12} + \\
& 89t^{25}u^{15} + 136t^{22}u^{18} + 146t^{19}u^{21} + 106t^{16}u^{24} + 59t^{13}u^{27} + 27t^{10}u^{30} + 4t^7u^{33} + 2t^{35}u^4 + 8t^{32}u^7 + 28t^{29}u^{10} + \\
& 83t^{26}u^{13} + 133t^{23}u^{16} + 144t^{20}u^{19} + 136t^{17}u^{22} + 102t^{14}u^{25} + 47t^{11}u^{28} + 11t^8u^{31} + 3t^5u^{34} + t^3u^5 + 20t^{30}u^8 + \\
& 52t^{27}u^{11} + 95t^{24}u^{14} + 140t^{21}u^{17} + 155t^{18}u^{20} + 111t^{15}u^{23} + 64t^{12}u^{26} + 30t^9u^{29} + 5t^6u^{32} + 2t^{34}u^3 + 9t^{31}u^6 + \\
& 30t^{28}u^9 + 87t^{25}u^{12} + 136t^{22}u^{15} + 150t^{19}u^{18} + 140t^{16}u^{21} + 107t^{13}u^{24} + 49t^{10}u^{27} + 11t^7u^{30} + 4t^4u^{33} + t^3u^4 + \\
& 22t^{29}u^7 + 53t^{26}u^{10} + 94t^{23}u^{13} + 143t^{20}u^{16} + 159t^{17}u^{19} + 113t^{14}u^{22} + 65t^{11}u^{25} + 32t^8u^{28} + 6t^5u^{31} + 2t^{33}u^2 + \\
& 9t^{30}u^5 + 30t^{27}u^8 + 87t^{24}u^{11} + 136t^{21}u^{14} + 150t^{18}u^{17} + 140t^{15}u^{20} + 107t^{12}u^{23} + 49t^9u^{26} + 11t^6u^{29} + 4t^3u^{32} + \\
& t^{31}u^3 + 20t^{28}u^6 + 52t^{25}u^9 + 95t^{22}u^{12} + 140t^{19}u^{15} + 155t^{16}u^{18} + 111t^{13}u^{21} + 64t^{10}u^{24} + 30t^7u^{27} + 5t^4u^{30} + \\
& 2t^{32}u + 8t^{29}u^4 + 28t^{26}u^7 + 83t^{23}u^{10} + 133t^{20}u^{13} + 144t^{17}u^{16} + 136t^{14}u^{19} + 102t^{11}u^{22} + 47t^8u^{25} + 11t^5u^{28} + \\
& 3t^2u^{31} + t^{30}u^2 + 18t^{27}u^5 + 49t^{24}u^8 + 89t^{21}u^{11} + 136t^{18}u^{14} + 146t^{15}u^{17} + 106t^{12}u^{20} + 59t^9u^{23} + 27t^6u^{26} + \\
& 4t^3u^{29} + t^{31} + 7t^{28}u^3 + 25t^{25}u^6 + 77t^{22}u^9 + 125t^{19}u^{12} + 134t^{16}u^{15} + 130t^{13}u^{18} + 96t^{10}u^{21} + 40t^7u^{24} + \\
& 9t^4u^{27} + 3tu^{30} + 15t^{26}u^4 + 43t^{23}u^7 + 79t^{20}u^{10} + 125t^{17}u^{13} + 136t^{14}u^{16} + 98t^{11}u^{19} + 52t^8u^{22} + 23t^5u^{25} + \\
& 3t^2u^{28} + 5t^{27}u^2 + 21t^{24}u^5 + 68t^{21}u^8 + 113t^{18}u^{11} + 122t^{15}u^{14} + 119t^{12}u^{17} + 87t^9u^{20} + 33t^6u^{23} + 7t^3u^{26} + \\
& 2u^{29} + 11t^{25}u^3 + 36t^{22}u^6 + 69t^{19}u^9 + 112t^{16}u^{12} + 121t^{13}u^{15} + 87t^{10}u^{18} + 44t^7u^{21} + 19t^4u^{24} + 2tu^{27} + 3t^{26}u + \\
& 15t^{23}u^4 + 57t^{20}u^7 + 100t^{17}u^{10} + 110t^{14}u^{13} + 102t^{11}u^{16} + 75t^8u^{19} + 27t^5u^{22} + 5t^2u^{25} + 7t^{24}u^2 + 29t^{21}u^5 + \\
& 57t^{18}u^8 + 97t^{15}u^{11} + 105t^{12}u^{14} + 72t^9u^{17} + 35t^6u^{20} + 14t^3u^{23} + 2t^{25} + 10t^{22}u^3 + 46t^{19}u^6 + 84t^{16}u^9 + \\
& 93t^{13}u^{12} + 86t^{10}u^{15} + 62t^7u^{18} + 20t^4u^{21} + 2tu^{24} + 5t^{23}u + 22t^{20}u^4 + 43t^{17}u^7 + 81t^{14}u^{10} + 90t^{11}u^{13} + \\
& 57t^8u^{16} + 26t^5u^{19} + 9t^2u^{22} + 6t^{21}u^2 + 34t^{18}u^5 + 68t^{15}u^8 + 77t^{12}u^{11} + 70t^9u^{14} + 49t^6u^{17} + 13t^3u^{20} + u^{23} + \\
& t^{22} + 16t^{19}u^3 + 32t^{16}u^6 + 64t^{13}u^9 + 72t^{10}u^{12} + 44t^7u^{15} + 18t^4u^{18} + 5tu^{21} + 2t^{20}u + 25t^{17}u^4 + 53t^{14}u^7 + \\
& 61t^{11}u^{10} + 54t^8u^{13} + 36t^5u^{16} + 9t^2u^{19} + 9t^{18}u^2 + 23t^{15}u^5 + 49t^{12}u^8 + 56t^9u^{11} + 31t^6u^{14} + 13t^3u^{17} + \\
& 2u^{20} + 16t^{16}u^3 + 40t^{13}u^6 + 44t^{10}u^9 + 40t^7u^{12} + 26t^4u^{15} + 3tu^{18} + 5t^{17}u + 14t^{14}u^4 + 35t^{11}u^7 + 42t^8u^{10} + \\
& 21t^5u^{13} + 7t^2u^{16} + 10t^{15}u^2 + 27t^{12}u^5 + 30t^9u^8 + 30t^6u^{11} + 17t^3u^{14} + 2t^{16} + 9t^{13}u^3 + 23t^{10}u^6 + 30t^7u^9 + \\
& 13t^4u^{12} + 3tu^{15} + 4t^{14}u + 19t^{11}u^4 + 19t^8u^7 + 19t^5u^{10} + 10t^2u^{13} + 5t^{12}u^2 + 15t^9u^5 + 20t^6u^8 + 7t^3u^{11} + \\
& u^{14} + t^{13} + 12t^{10}u^3 + 11t^7u^6 + 12t^4u^9 + 6tu^{12} + t^{11}u + 9t^8u^4 + 13t^5u^7 + 3t^2u^{10} + 7t^9u^2 + 6t^6u^5 + 7t^3u^8 + \\
& 2u^{11} + 4t^7u^3 + 8t^4u^6 + tu^9 + 4t^8u + 3t^5u^4 + 3t^2u^7 + 2t^6u^2 + 4t^3u^5 + 2t^7 + t^4u^3 + tu^6 + t^5u + 2t^2u^4 + u^5 + tu^3
\end{aligned}$$

$$\begin{aligned}
M_G(t, u)_9 = & t^{36}u^{32} + t^{34}u^{33} + t^{31}u^{36} + 2t^{35}u^{31} + 2t^{33}u^{32} + 3t^{30}u^{35} + 3t^{34}u^{30} + t^{31}u^{33} + t^{28}u^{36} + t^{35}u^{28} + \\
& 5t^{32}u^{31} + 5t^{29}u^{34} + 7t^{33}u^{29} + 3t^{30}u^{32} + 2t^{27}u^{35} + 3t^{34}u^{27} + 9t^{31}u^{30} + 9t^{28}u^{33} + 3t^{35}u^{25} + 12t^{32}u^{28} + 7t^{29}u^{31} + \\
& 5t^{26}u^{34} + 3t^{36}u^{23} + 7t^{33}u^{26} + 14t^{30}u^{29} + 15t^{27}u^{32} + 2t^{24}u^{35} + 6t^{34}u^{24} + 18t^{31}u^{27} + 13t^{28}u^{30} + 10t^{25}u^{33} + \\
& t^{22}u^{36} + 6t^{35}u^{22} + 13t^{32}u^{25} + 23t^{29}u^{28} + 22t^{26}u^{31} + 7t^{23}u^{34} + 11t^{33}u^{23} + 27t^{30}u^{26} + 22t^{27}u^{29} + 15t^{24}u^{32} + \\
& 5t^{21}u^{35} + 11t^{34}u^{21} + 21t^{31}u^{24} + 35t^{28}u^{27} + 33t^{25}u^{30} + 11t^{22}u^{33} + 2t^{19}u^{36} + t^{35}u^{19} + 19t^{32}u^{22} + 39t^{29}u^{25} + \\
& 33t^{26}u^{28} + 23t^{23}u^{31} + 10t^{20}u^{34} + 2t^{36}u^{17} + 18t^{33}u^{20} + 30t^{30}u^{23} + 49t^{27}u^{26} + 47t^{24}u^{29} + 19t^{21}u^{32} + 3t^{18}u^{35} + \\
& 6t^{34}u^{18} + 29t^{31}u^{21} + 52t^{28}u^{24} + 48t^{25}u^{27} + 34t^{22}u^{30} + 17t^{19}u^{33} + 6t^{35}u^{16} + 26t^{32}u^{19} + 42t^{29}u^{22} + 65t^{26}u^{25} + \\
& 62t^{23}u^{28} + 28t^{20}u^{31} + 8t^{17}u^{34} + t^{36}u^{14} + 10t^{33}u^{17} + 40t^{30}u^{20} + 67t^{27}u^{23} + 64t^{24}u^{26} + 45t^{21}u^{29} + 25t^{18}u^{32} + \\
& 3t^{15}u^{35} + 11t^{34}u^{15} + 34t^{31}u^{18} + 56t^{28}u^{21} + 84t^{25}u^{24} + 79t^{22}u^{27} + 38t^{19}u^{30} + 13t^{16}u^{33} + 3t^{13}u^{36} + 3t^{35}u^{13} + \\
& 15t^{32}u^{16} + 54t^{29}u^{19} + 83t^{26}u^{22} + 79t^{23}u^{25} + 59t^{20}u^{28} + 34t^{17}u^{31} + 6t^{14}u^{34} + 16t^{33}u^{14} + 46t^{30}u^{17} + 71t^{27}u^{20} + \\
& 100t^{24}u^{23} + 96t^{21}u^{26} + 51t^{18}u^{29} + 19t^{15}u^{32} + 6t^{12}u^{35} + 6t^{34}u^{12} + 23t^{31}u^{15} + 67t^{28}u^{18} + 98t^{25}u^{21} + 96t^{22}u^{24} + \\
& 73t^{19}u^{27} + 44t^{16}u^{30} + 10t^{13}u^{33} + t^{35}u^{10} + 22t^{32}u^{13} + 56t^{29}u^{16} + 88t^{26}u^{19} + 115t^{23}u^{22} + 113t^{20}u^{25} + \\
& 65t^{17}u^{28} + 25t^{14}u^{31} + 8t^{11}u^{34} + t^{36}u^8 + 10t^{33}u^{11} + 30t^{30}u^{14} + 80t^{27}u^{17} + 115t^{24}u^{20} + 110t^{21}u^{23} + 87t^{18}u^{26} + \\
& 53t^{15}u^{29} + 15t^{12}u^{32} + t^9u^{35} + 3t^{34}u^9 + 27t^{31}u^{12} + 66t^{28}u^{15} + 102t^{25}u^{18} + 131t^{22}u^{21} + 128t^{19}u^{24} + 76t^{16}u^{27} + \\
& 32t^{13}u^{30} + 12t^{10}u^{33} + 3t^{35}u^7 + 12t^{32}u^{10} + 36t^{29}u^{13} + 91t^{26}u^{16} + 130t^{23}u^{19} + 121t^{20}u^{22} + 97t^{17}u^{25} + \\
& 62t^{14}u^{28} + 20t^{11}u^{31} + 2t^8u^{34} + t^3u^5 + 4t^{33}u^8 + 33t^{30}u^{11} + 74t^{27}u^{14} + 112t^{24}u^{17} + 143t^{21}u^{20} + 141t^{18}u^{23} + \\
& 86t^{15}u^{26} + 37t^{12}u^{29} + 15t^9u^{32} + t^6u^{35} + 3t^{34}u^6 + 15t^{31}u^9 + 44t^{28}u^{12} + 98t^{25}u^{15} + 139t^{22}u^{18} + 131t^{19}u^{21} + \\
& 107t^{16}u^{24} + 68t^{13}u^{27} + 23t^{10}u^{30} + 3t^7u^{33} + t^4u^{36} + t^3u^4 + 5t^{32}u^7 + 37t^{29}u^{10} + 81t^{26}u^{13} + 118t^{23}u^{16} + \\
& 153t^{20}u^{19} + 149t^{17}u^{22} + 95t^{14}u^{25} + 42t^{11}u^{28} + 17t^8u^{31} + 2t^5u^{34} + 4t^{33}u^5 + 17t^{30}u^8 + 48t^{27}u^{11} + 104t^{24}u^{14} + \\
& 145t^{21}u^{17} + 138t^{18}u^{20} + 112t^{15}u^{23} + 72t^{12}u^{26} + 26t^9u^{29} + 3t^6u^{32} + t^3u^{35} + t^3u^3 + 6t^{31}u^6 + 40t^{28}u^9 + \\
& 84t^{25}u^{12} + 121t^{22}u^{15} + 161t^{19}u^{18} + 153t^{16}u^{21} + 96t^{13}u^{24} + 44t^{10}u^{27} + 19t^7u^{30} + 2t^4u^{33} + 5t^{32}u^4 + 17t^{29}u^7 +
\end{aligned}$$

$$\begin{aligned}
& 49t^{26}u^{10} + 107t^{23}u^{13} + 148t^{20}u^{16} + 140t^{17}u^{19} + 114t^{14}u^{22} + 74t^{11}u^{25} + 27t^8u^{28} + 4t^5u^{31} + t^2u^{34} + t^{33}u^2 + \\
& 6t^{30}u^5 + 40t^{27}u^8 + 84t^{24}u^{11} + 121t^{21}u^{14} + 161t^{18}u^{17} + 153t^{15}u^{20} + 96t^{12}u^{23} + 44t^9u^{26} + 19t^6u^{29} + 2t^3u^{32} + \\
& 4t^{31}u^3 + 17t^{28}u^6 + 48t^{25}u^9 + 104t^{22}u^{12} + 145t^{19}u^{15} + 138t^{16}u^{18} + 112t^{13}u^{21} + 72t^{10}u^{24} + 26t^7u^{27} + 3t^4u^{30} + \\
& tu^{33} + t^{32}u + 5t^{29}u^4 + 37t^{26}u^7 + 81t^{23}u^{10} + 118t^{20}u^{13} + 153t^{17}u^{16} + 149t^{14}u^{19} + 95t^{11}u^{22} + 42t^8u^{25} + \\
& 17t^5u^{28} + 2t^2u^{31} + 3t^{30}u^2 + 15t^{27}u^5 + 44t^{24}u^8 + 98t^{21}u^{11} + 139t^{18}u^{14} + 131t^{15}u^{17} + 107t^{12}u^{20} + 68t^9u^{23} + \\
& 23t^6u^{26} + 3t^3u^{29} + u^{32} + t^{31} + 4t^{28}u^3 + 33t^{25}u^6 + 74t^{22}u^9 + 112t^{19}u^{12} + 143t^{16}u^{15} + 141t^{13}u^{18} + 86t^{10}u^{21} + \\
& 37t^7u^{24} + 15t^4u^{27} + tu^{30} + 3t^{29}u + 12t^{26}u^4 + 36t^{23}u^7 + 91t^{20}u^{10} + 130t^{17}u^{13} + 121t^{14}u^{16} + 97t^{11}u^{19} + \\
& 62t^8u^{22} + 20t^5u^{25} + 2t^2u^{28} + 3t^{27}u^2 + 27t^{24}u^5 + 66t^{21}u^8 + 102t^{18}u^{11} + 131t^{15}u^{14} + 128t^{12}u^{17} + 76t^9u^{20} + \\
& 32t^6u^{23} + 12t^3u^{26} + t^{28} + 10t^{25}u^3 + 30t^{22}u^6 + 80t^{19}u^9 + 115t^{16}u^{12} + 110t^{13}u^{15} + 87t^{10}u^{18} + 53t^7u^{21} + \\
& 15t^4u^{24} + tu^{27} + t^{26}u + 22t^{23}u^4 + 56t^{20}u^7 + 88t^{17}u^{10} + 115t^{14}u^{13} + 113t^{11}u^{16} + 65t^8u^{19} + 25t^5u^{22} + 8t^2u^{25} + \\
& 6t^{24}u^2 + 23t^{21}u^5 + 67t^{18}u^8 + 98t^{15}u^{11} + 96t^{12}u^{14} + 73t^9u^{17} + 44t^6u^{20} + 10t^3u^{23} + 16t^{22}u^3 + 46t^{19}u^6 + \\
& 71t^{16}u^9 + 100t^{13}u^{12} + 96t^{10}u^{15} + 51t^7u^{18} + 19t^4u^{21} + 6tu^{24} + 3t^{23}u + 15t^{20}u^4 + 54t^{17}u^7 + 83t^{14}u^{10} + \\
& 79t^{11}u^{13} + 59t^8u^{16} + 34t^5u^{19} + 6t^2u^{22} + 11t^{21}u^2 + 34t^{18}u^5 + 56t^{15}u^8 + 84t^{12}u^{11} + 79t^9u^{14} + 38t^6u^{17} + \\
& 13t^3u^{20} + 3u^{23} + t^{22} + 10t^{19}u^3 + 40t^{16}u^6 + 67t^{13}u^9 + 64t^{10}u^{12} + 45t^7u^{15} + 25t^4u^{18} + 3tu^{21} + 6t^{20}u + 26t^{17}u^4 + \\
& 42t^{14}u^7 + 65t^{11}u^{10} + 62t^8u^{13} + 28t^5u^{16} + 8t^2u^{19} + 6t^{18}u^2 + 29t^{15}u^5 + 52t^{12}u^8 + 48t^9u^{11} + 34t^6u^{14} + \\
& 17t^3u^{17} + 2t^{19} + 18t^{16}u^3 + 30t^{13}u^6 + 49t^{10}u^9 + 47t^7u^{12} + 19t^4u^{15} + 3tu^{18} + t^{17}u + 19t^{14}u^4 + 39t^{11}u^7 + \\
& 33t^8u^{10} + 23t^5u^{13} + 10t^2u^{16} + 11t^{15}u^2 + 21t^{12}u^5 + 35t^9u^8 + 33t^6u^{11} + 11t^3u^{14} + 2u^{17} + 11t^{13}u^3 + 27t^{10}u^6 + \\
& 22t^7u^9 + 15t^4u^{12} + 5tu^{15} + 6t^{14}u + 13t^{11}u^4 + 23t^8u^7 + 22t^5u^{10} + 7t^2u^{13} + 6t^{12}u^2 + 18t^9u^5 + 13t^6u^8 + \\
& 10t^3u^{11} + u^{14} + 3t^{13} + 7t^{10}u^3 + 14t^7u^6 + 15t^4u^9 + 2tu^{12} + 3t^{11}u + 12t^8u^4 + 7t^5u^7 + 5t^2u^{10} + 3t^9u^2 + 9t^6u^5 + \\
& 9t^3u^8 + 7t^7u^3 + 3t^4u^6 + 2tu^9 + t^8u + 5t^5u^4 + 5t^2u^7 + 3t^6u^2 + t^3u^5 + u^8 + 2t^4u^3 + 3tu^6 + 2t^5u + t^3u^2 + u^5 + t^4
\end{aligned}$$

$$M_G(t, u)_{10} = M_G(u, t)_9$$

$$M_G(t, u)_{11} = M_G(u, t)_7$$

$$M_G(t, u)_{12} = M_G(u, t)_8$$

$$\begin{aligned}
M_G(t, u)_{13} = & (t^{30}u^{26} + t^{27}u^{29} + t^{28}u^{27} + t^{25}u^{30} + 3t^{29}u^{25} + 3t^{26}u^{28} + t^{30}u^{23} + 2t^{27}u^{26} + 3t^{24}u^{29} + 7t^{28}u^{24} + \\
& 6t^{25}u^{27} + t^{22}u^{30} + 3t^{29}u^{22} + 6t^{26}u^{25} + 7t^{23}u^{28} + 12t^{27}u^{23} + 12t^{24}u^{26} + 2t^{21}u^{29} + 7t^{28}u^{21} + 12t^{25}u^{24} + \\
& 13t^{22}u^{27} + 2t^{29}u^{19} + 20t^{26}u^{22} + 19t^{23}u^{25} + 7t^{20}u^{28} + t^{30}u^{17} + 15t^{27}u^{20} + 19t^{24}u^{23} + 22t^{21}u^{26} + 3t^{18}u^{29} + \\
& 6t^{28}u^{18} + 30t^{25}u^{21} + 28t^{22}u^{24} + 13t^{19}u^{27} + 4t^{16}u^{30} + 6t^{29}u^{16} + 22t^{26}u^{19} + 29t^{23}u^{22} + 32t^{20}u^{25} + 6t^{17}u^{28} + \\
& 4t^{30}u^{14} + 11t^{27}u^{17} + 42t^{24}u^{20} + 41t^{21}u^{23} + 20t^{18}u^{26} + 9t^{15}u^{29} + 9t^{28}u^{15} + 32t^{25}u^{18} + 40t^{22}u^{21} + 44t^{19}u^{24} + \\
& 11t^{16}u^{27} + t^{13}u^{30} + 7t^{29}u^{13} + 18t^{26}u^{16} + 55t^{23}u^{19} + 52t^{20}u^{22} + 30t^{17}u^{25} + 13t^{14}u^{28} + 15t^{27}u^{14} + 43t^{24}u^{17} + \\
& 48t^{21}u^{20} + 56t^{18}u^{23} + 18t^{15}u^{26} + 3t^{12}u^{29} + 12t^{28}u^{12} + 27t^{25}u^{15} + 68t^{22}u^{18} + 63t^{19}u^{21} + 37t^{16}u^{24} + 21t^{13}u^{27} + \\
& t^{29}u^{10} + 24t^{26}u^{13} + 50t^{23}u^{16} + 57t^{20}u^{19} + 68t^{17}u^{22} + 27t^{14}u^{25} + 7t^{11}u^{28} + t^{30}u^8 + 18t^{27}u^{11} + 32t^{24}u^{14} + \\
& 78t^{21}u^{17} + 72t^{18}u^{20} + 42t^{15}u^{23} + 29t^{12}u^{26} + 2t^9u^{29} + 5t^{28}u^9 + 32t^{25}u^{12} + 60t^{22}u^{15} + 63t^{19}u^{18} + 75t^{16}u^{21} + \\
& 35t^{13}u^{24} + 12t^{10}u^{27} + t^7u^{30} + 3t^{29}u^7 + 24t^{26}u^{10} + 40t^{23}u^{13} + 84t^{20}u^{16} + 78t^{17}u^{19} + 52t^{14}u^{22} + 36t^{11}u^{25} + \\
& 6t^8u^{28} + t^{30}u^5 + 8t^{27}u^8 + 40t^{24}u^{11} + 67t^{21}u^{14} + 65t^{18}u^{17} + 81t^{15}u^{20} + 44t^{12}u^{23} + 16t^9u^{26} + 3t^6u^{29} + \\
& 5t^{28}u^6 + 30t^{25}u^9 + 47t^{22}u^{12} + 90t^{19}u^{15} + 80t^{16}u^{18} + 58t^{13}u^{21} + 45t^{10}u^{24} + 7t^7u^{27} + t^4u^{30} + 2t^{29}u^4 + \\
& 9t^{26}u^7 + 49t^{23}u^{10} + 71t^{20}u^{13} + 65t^{17}u^{16} + 86t^{14}u^{19} + 50t^{11}u^{22} + 21t^8u^{25} + 4t^5u^{28} + 6t^{27}u^5 + 35t^{24}u^8 + \\
& 53t^{21}u^{11} + 95t^{18}u^{14} + 84t^{15}u^{17} + 63t^{12}u^{20} + 51t^9u^{23} + 9t^6u^{26} + t^3u^{29} + 2t^{28}u^3 + 12t^{25}u^6 + 50t^{22}u^9 + \\
& 75t^{19}u^{12} + 66t^{16}u^{15} + 89t^{13}u^{18} + 54t^{10}u^{21} + 23t^7u^{24} + 5t^4u^{27} + 7t^{26}u^4 + 36t^{23}u^7 + 55t^{20}u^{10} + 97t^{17}u^{13} + \\
& 85t^{14}u^{16} + 66t^{11}u^{19} + 50t^8u^{22} + 11t^5u^{25} + t^2u^{28} + 2t^{27}u^2 + 12t^{24}u^5 + 50t^{21}u^8 + 75t^{18}u^{11} + 66t^{15}u^{14} + \\
& 89t^{12}u^{17} + 54t^9u^{20} + 23t^6u^{23} + 5t^3u^{26} + 6t^{25}u^3 + 35t^{22}u^6 + 53t^{19}u^9 + 95t^{16}u^{12} + 84t^{13}u^{15} + 63t^{10}u^{18} + \\
& 51t^7u^{21} + 9t^4u^{24} + tu^{27} + 2t^{26}u + 9t^{23}u^4 + 49t^{20}u^7 + 71t^{17}u^{10} + 65t^{14}u^{13} + 86t^{11}u^{16} + 50t^8u^{19} + 21t^5u^{22} + \\
& 4t^2u^{25} + 5t^{24}u^2 + 30t^{21}u^5 + 47t^{18}u^8 + 90t^{15}u^{11} + 80t^{12}u^{14} + 58t^9u^{17} + 45t^6u^{20} + 7t^3u^{23} + u^{26} + t^{25} + \\
& 8t^{22}u^3 + 40t^{19}u^6 + 67t^{16}u^9 + 65t^{13}u^{12} + 81t^{10}u^{15} + 44t^7u^{18} + 16t^4u^{21} + 3tu^{24} + 3t^{23}u + 24t^{20}u^4 + \\
& 40t^{17}u^7 + 84t^{14}u^{10} + 78t^{11}u^{13} + 52t^8u^{16} + 36t^5u^{19} + 6t^2u^{22} + 5t^{21}u^2 + 32t^{18}u^5 + 60t^{15}u^8 + 63t^{12}u^{11} + \\
& 75t^9u^{14} + 35t^6u^{17} + 12t^3u^{20} + u^{23} + t^{22} + 18t^{19}u^3 + 32t^{16}u^6 + 78t^{13}u^9 + 72t^{10}u^{12} + 42t^7u^{15} + 29t^4u^{18} + \\
& 2tu^{21} + t^{20}u + 24t^{17}u^4 + 50t^{14}u^7 + 57t^{11}u^{10} + 68t^8u^{13} + 27t^5u^{16} + 7t^2u^{19} + 12t^{18}u^2 + 27t^{15}u^5 + 68t^{12}u^8 + \\
& 63t^9u^{11} + 37t^6u^{14} + 21t^3u^{17} + 15t^{16}u^3 + 43t^{13}u^6 + 48t^{10}u^9 + 56t^7u^{12} + 18t^4u^{15} + 3tu^{18} + 7t^{17}u + 18t^{14}u^4 + \\
& 55t^{11}u^7 + 52t^8u^{10} + 30t^5u^{13} + 13t^2u^{16} + 9t^{15}u^2 + 32t^{12}u^5 + 40t^9u^8 + 44t^6u^{11} + 11t^3u^{14} + u^{17} + 4t^{16} + \\
& 11t^{13}u^3 + 42t^{10}u^6 + 41t^7u^9 + 20t^4u^{12} + 9tu^{15} + 6t^{14}u + 22t^{11}u^4 + 29t^8u^7 + 32t^5u^{10} + 6t^2u^{13} + 6t^{12}u^2 + \\
& 30t^9u^5 + 28t^6u^8 + 13t^3u^{11} + 4u^{14} + t^{13} + 15t^{10}u^3 + 19t^7u^6 + 22t^4u^9 + 3tu^{12} + 2t^{11}u + 20t^8u^4 + 19t^5u^7 + \\
& 7t^2u^{10} + 7t^9u^2 + 12t^6u^5 + 13t^3u^8 + 12t^7u^3 + 12t^4u^6 + 2tu^9 + 3t^8u + 6t^5u^4 + 7t^2u^7 + 7t^6u^2 + 6t^3u^5 +
\end{aligned}$$

$$u^8 + t^7 + 2t^4u^3 + 3tu^6 + 3t^5u + 3t^2u^4 + t^3u^2 + u^5 + t^4 + tu^3)(u^4 - u^2 + 1)(t^2 + 1)(t^4 - t^2 + 1)(u^2 + 1)$$

$$\begin{aligned} M_G(t, u)_{14} = & (t^{29}u^{28} + t^{30}u^{26} + 2t^{28}u^{27} + 2t^{29}u^{25} + 2t^{26}u^{28} + 5t^{27}u^{26} + 2t^{24}u^{29} + 5t^{28}u^{24} + 5t^{25}u^{27} + \\ & 3t^{22}u^{30} + t^{29}u^{22} + 10t^{26}u^{25} + 4t^{23}u^{28} + 2t^{30}u^{20} + 11t^{27}u^{23} + 9t^{24}u^{26} + 7t^{21}u^{29} + 5t^{28}u^{21} + 18t^{25}u^{24} + \\ & 9t^{22}u^{27} + t^{19}u^{30} + 6t^{29}u^{19} + 18t^{26}u^{22} + 17t^{23}u^{25} + 11t^{20}u^{28} + 2t^{30}u^{17} + 9t^{27}u^{20} + 28t^{24}u^{23} + 16t^{21}u^{26} + \\ & 3t^{18}u^{29} + 12t^{28}u^{18} + 28t^{25}u^{21} + 25t^{22}u^{24} + 19t^{19}u^{27} + 5t^{29}u^{16} + 15t^{26}u^{19} + 42t^{23}u^{22} + 25t^{20}u^{25} + 7t^{17}u^{28} + \\ & 18t^{27}u^{17} + 40t^{24}u^{20} + 33t^{21}u^{23} + 29t^{18}u^{26} + 3t^{15}u^{29} + 9t^{28}u^{15} + 24t^{25}u^{18} + 53t^{22}u^{21} + 34t^{19}u^{24} + 13t^{16}u^{27} + \\ & 2t^{13}u^{30} + 2t^{29}u^{13} + 27t^{26}u^{16} + 50t^{23}u^{19} + 46t^{20}u^{22} + 39t^{17}u^{25} + 9t^{14}u^{28} + t^{30}u^{11} + 17t^{27}u^{14} + 31t^{24}u^{17} + \\ & 65t^{21}u^{20} + 45t^{18}u^{23} + 18t^{15}u^{26} + 6t^{12}u^{29} + 6t^{28}u^{12} + 36t^{25}u^{15} + 60t^{22}u^{18} + 55t^{19}u^{21} + 52t^{16}u^{24} + 13t^{13}u^{27} + \\ & 2t^{10}u^{30} + 5t^{29}u^{10} + 24t^{26}u^{13} + 38t^{23}u^{16} + 76t^{20}u^{19} + 53t^{17}u^{22} + 27t^{14}u^{25} + 10t^{11}u^{28} + 3t^{30}u^8 + 11t^{27}u^{11} + \\ & 47t^{24}u^{14} + 71t^{21}u^{17} + 61t^{18}u^{20} + 63t^{15}u^{23} + 20t^{12}u^{26} + 3t^9u^{29} + 7t^{28}u^9 + 33t^{25}u^{12} + 48t^{22}u^{15} + 83t^{19}u^{18} + \\ & 61t^{16}u^{21} + 35t^{13}u^{24} + 16t^{10}u^{27} + 5t^{29}u^7 + 16t^{26}u^{10} + 58t^{23}u^{13} + 76t^{20}u^{16} + 68t^{17}u^{19} + 70t^{14}u^{22} + 28t^{11}u^{25} + \\ & 6t^8u^{28} + 10t^{27}u^8 + 41t^{24}u^{11} + 53t^{21}u^{14} + 88t^{18}u^{17} + 69t^{15}u^{20} + 42t^{12}u^{23} + 22t^9u^{26} + t^6u^{29} + 7t^{28}u^6 + \\ & 22t^{25}u^9 + 66t^{22}u^{12} + 81t^{19}u^{15} + 69t^{16}u^{18} + 81t^{13}u^{21} + 32t^{10}u^{24} + 9t^7u^{27} + t^4u^{30} + 14t^{26}u^7 + 46t^{23}u^{10} + \\ & 58t^{20}u^{13} + 92t^{17}u^{16} + 72t^{14}u^{19} + 49t^{11}u^{22} + 26t^8u^{25} + 2t^5u^{28} + 8t^{27}u^5 + 23t^{24}u^8 + 71t^{21}u^{11} + 84t^{18}u^{14} + \\ & 69t^{15}u^{17} + 85t^{12}u^{20} + 37t^9u^{23} + 12t^6u^{26} + 2t^3u^{29} + t^{28}u^3 + 15t^{25}u^6 + 51t^{22}u^9 + 62t^{19}u^{12} + 90t^{16}u^{15} + \\ & 76t^{13}u^{18} + 51t^{10}u^{21} + 29t^7u^{24} + 2t^4u^{27} + 9t^{26}u^4 + 23t^{23}u^7 + 73t^{20}u^{10} + 85t^{17}u^{13} + 70t^{14}u^{16} + 85t^{11}u^{19} + \\ & 40t^8u^{22} + 13t^5u^{25} + 2t^2u^{28} + t^{27}u^2 + 15t^{24}u^5 + 51t^{21}u^8 + 62t^{18}u^{11} + 90t^{15}u^{14} + 76t^{12}u^{17} + 51t^9u^{20} + \\ & 29t^6u^{23} + 2t^3u^{26} + 8t^{25}u^3 + 23t^{22}u^6 + 71t^{19}u^9 + 84t^{16}u^{12} + 69t^{13}u^{15} + 85t^{10}u^{18} + 37t^7u^{21} + 12t^4u^{24} + \\ & 2tu^{27} + 14t^{23}u^4 + 46t^{20}u^7 + 58t^{17}u^{10} + 92t^{14}u^{13} + 72t^{11}u^{16} + 49t^8u^{19} + 26t^5u^{22} + 2t^2u^{25} + 7t^{24}u^2 + \\ & 22t^{21}u^5 + 66t^{18}u^8 + 81t^{15}u^{11} + 69t^{12}u^{14} + 81t^9u^{17} + 32t^6u^{20} + 9t^3u^{23} + u^{26} + 10t^{22}u^3 + 41t^{19}u^6 + \\ & 53t^{16}u^9 + 88t^{13}u^{12} + 69t^{10}u^{15} + 42t^7u^{18} + 22t^4u^{21} + tu^{24} + 5t^{23}u + 16t^{20}u^4 + 58t^{17}u^7 + 76t^{14}u^{10} + \\ & 68t^{11}u^{13} + 70t^8u^{16} + 28t^5u^{19} + 6t^2u^{22} + 7t^{21}u^2 + 33t^{18}u^5 + 48t^{15}u^8 + 83t^{12}u^{11} + 61t^9u^{14} + 35t^6u^{17} + \\ & 16t^3u^{20} + 3t^{22} + 11t^{19}u^3 + 47t^{16}u^6 + 71t^{13}u^9 + 61t^{10}u^{12} + 63t^7u^{15} + 20t^4u^{18} + 3tu^{21} + 5t^{20}u + 24t^{17}u^4 + \\ & 38t^{14}u^7 + 76t^{11}u^{10} + 53t^8u^{13} + 27t^5u^{16} + 10t^2u^{19} + 6t^{18}u^2 + 36t^{15}u^5 + 60t^{12}u^8 + 55t^9u^{11} + 52t^6u^{14} + \\ & 13t^3u^{17} + 2u^{20} + t^{19} + 17t^{16}u^3 + 31t^{13}u^6 + 65t^{10}u^9 + 45t^7u^{12} + 18t^4u^{15} + 6tu^{18} + 2t^{17}u + 27t^{14}u^4 + \\ & 50t^{11}u^7 + 46t^8u^{10} + 39t^5u^{13} + 9t^2u^{16} + 9t^{15}u^2 + 24t^{12}u^5 + 53t^9u^8 + 34t^6u^{11} + 13t^3u^{14} + 2u^{17} + 18t^{13}u^3 + \\ & 40t^{10}u^6 + 33t^7u^9 + 29t^4u^{12} + 3tu^{15} + 5t^{14}u + 15t^{11}u^4 + 42t^8u^7 + 25t^5u^{10} + 7t^2u^{13} + 12t^{12}u^2 + 28t^9u^5 + \\ & 25t^6u^8 + 19t^3u^{11} + 2t^{13} + 9t^{10}u^3 + 28t^7u^6 + 16t^4u^9 + 3tu^{12} + 6t^{11}u + 18t^8u^4 + 17t^5u^7 + 11t^2u^{10} + \\ & 5t^9u^2 + 18t^6u^5 + 9t^3u^8 + u^{11} + 2t^{10} + 11t^7u^3 + 9t^4u^6 + 7tu^9 + t^8u + 10t^5u^4 + 4t^2u^7 + 5t^6u^2 + 5t^3u^5 + \\ & 3u^8 + 5t^4u^3 + 2tu^6 + 2t^5u + 2t^2u^4 + 2t^3u^2 + t^4 + t^2u)(u^4 - u^2 + 1)(t^2 + 1)(t^4 - t^2 + 1)(u^2 + 1) \end{aligned}$$

$$\begin{aligned} M_G(t, u)_{15} = & (t^{28}u^{30} + 2t^{27}u^{29} + t^{28}u^{27} + t^{29}u^{25} + 4t^{26}u^{28} + t^{30}u^{23} + 4t^{27}u^{26} + t^{24}u^{29} + 3t^{28}u^{24} + \\ & 8t^{25}u^{27} + 5t^{29}u^{22} + 8t^{26}u^{25} + 4t^{23}u^{28} + 3t^{30}u^{20} + 6t^{27}u^{23} + 15t^{24}u^{26} + 3t^{21}u^{29} + 8t^{28}u^{21} + 15t^{25}u^{24} + \\ & 9t^{22}u^{27} + 2t^{19}u^{30} + 6t^{29}u^{19} + 13t^{26}u^{22} + 24t^{23}u^{25} + 8t^{20}u^{28} + 14t^{27}u^{20} + 25t^{24}u^{23} + 14t^{21}u^{26} + 6t^{18}u^{29} + \\ & 11t^{28}u^{18} + 22t^{25}u^{21} + 37t^{22}u^{24} + 13t^{19}u^{27} + 2t^{16}u^{30} + t^{29}u^{16} + 23t^{26}u^{19} + 34t^{23}u^{22} + 24t^{20}u^{25} + 11t^{17}u^{28} + \\ & 2t^{30}u^{14} + 19t^{27}u^{17} + 29t^{24}u^{20} + 50t^{21}u^{23} + 21t^{18}u^{26} + 3t^{15}u^{29} + 6t^{28}u^{15} + 33t^{25}u^{18} + 47t^{22}u^{21} + 33t^{19}u^{24} + \\ & 18t^{16}u^{27} + 6t^{29}u^{13} + 27t^{26}u^{16} + 39t^{23}u^{19} + 61t^{20}u^{22} + 30t^{17}u^{25} + 8t^{14}u^{28} + 2t^{30}u^{11} + 10t^{27}u^{14} + 43t^{24}u^{17} + \\ & 59t^{21}u^{20} + 41t^{18}u^{23} + 27t^{15}u^{26} + 3t^{12}u^{29} + 11t^{28}u^{12} + 36t^{25}u^{15} + 48t^{22}u^{18} + 74t^{19}u^{21} + 37t^{16}u^{24} + 14t^{13}u^{27} + \\ & 3t^{10}u^{30} + 5t^{29}u^{10} + 15t^{26}u^{13} + 56t^{23}u^{16} + 66t^{20}u^{19} + 50t^{17}u^{22} + 36t^{14}u^{25} + 6t^{11}u^{28} + 16t^{27}u^{11} + 47t^{24}u^{14} + \\ & 55t^{21}u^{17} + 84t^{18}u^{20} + 48t^{15}u^{23} + 21t^{12}u^{26} + 7t^9u^{29} + 8t^{28}u^9 + 24t^{25}u^{12} + 63t^{22}u^{15} + 73t^{19}u^{18} + 56t^{16}u^{21} + \\ & 47t^{13}u^{24} + 10t^{10}u^{27} + t^7u^{30} + t^{29}u^7 + 23t^{26}u^{10} + 55t^{23}u^{13} + 62t^{20}u^{16} + 91t^{17}u^{19} + 58t^{14}u^{22} + 29t^{11}u^{25} + \\ & 9t^8u^{28} + 13t^{27}u^8 + 30t^{24}u^{11} + 72t^{21}u^{14} + 78t^{18}u^{17} + 60t^{15}u^{20} + 56t^{12}u^{23} + 14t^9u^{26} + 2t^6u^{29} + 3t^{28}u^6 + \\ & 28t^{25}u^9 + 63t^{22}u^{12} + 66t^{19}u^{15} + 97t^{16}u^{18} + 65t^{13}u^{21} + 34t^{10}u^{24} + 13t^7u^{27} + t^{29}u^4 + 16t^{26}u^7 + 34t^{23}u^{10} + \\ & 81t^{20}u^{13} + 77t^{17}u^{16} + 64t^{14}u^{19} + 63t^{11}u^{22} + 19t^8u^{25} + 3t^5u^{28} + t^{30}u^2 + 5t^{27}u^5 + 32t^{24}u^8 + 68t^{21}u^{11} + \\ & 67t^{18}u^{14} + 99t^{15}u^{17} + 69t^{12}u^{20} + 36t^9u^{23} + 15t^6u^{26} + t^{28}u^3 + 18t^{25}u^6 + 39t^{22}u^9 + 82t^{19}u^{12} + 78t^{16}u^{15} + \\ & 66t^{13}u^{18} + 67t^{10}u^{21} + 20t^7u^{24} + 4t^4u^{27} + t^{29}u + 5t^{26}u^4 + 34t^{23}u^7 + 68t^{20}u^{10} + 70t^{17}u^{13} + 97t^{14}u^{16} + \\ & 72t^{11}u^{19} + 39t^8u^{22} + 15t^5u^{25} + t^2u^{28} + t^{27}u^2 + 18t^{24}u^5 + 39t^{21}u^8 + 82t^{18}u^{11} + 78t^{15}u^{14} + 66t^{12}u^{17} + \\ & 67t^9u^{20} + 20t^6u^{23} + 4t^3u^{26} + t^{28} + 5t^{25}u^3 + 32t^{22}u^6 + 68t^{19}u^9 + 67t^{16}u^{12} + 99t^{13}u^{15} + 69t^{10}u^{18} + \\ & 36t^7u^{21} + 15t^4u^{24} + t^{26}u + 16t^{23}u^4 + 34t^{20}u^7 + 81t^{17}u^{10} + 77t^{14}u^{13} + 64t^{11}u^{16} + 63t^8u^{19} + 19t^5u^{22} + \\ & 3t^2u^{25} + 3t^{24}u^2 + 28t^{21}u^5 + 63t^{18}u^8 + 66t^{15}u^{11} + 97t^{12}u^{14} + 65t^9u^{17} + 34t^6u^{20} + 13t^3u^{23} + 13t^{22}u^3 + \\ & 30t^{19}u^6 + 72t^{16}u^9 + 78t^{13}u^{12} + 60t^{10}u^{15} + 56t^7u^{18} + 14t^4u^{21} + 2tu^{24} + t^{23}u + 23t^{20}u^4 + 55t^{17}u^7 + \\ & 62t^{14}u^{10} + 91t^{11}u^{13} + 58t^8u^{16} + 29t^5u^{19} + 9t^2u^{22} + 8t^{21}u^2 + 24t^{18}u^5 + 63t^{15}u^8 + 73t^{12}u^{11} + 56t^9u^{14} + \\ & 47t^6u^{17} + 10t^3u^{20} + u^{23} + 16t^{19}u^3 + 47t^{16}u^6 + 55t^{13}u^9 + 84t^{10}u^{12} + 48t^7u^{15} + 21t^4u^{18} + 7tu^{21} + 5t^{20}u + \\ & 15t^{17}u^4 + 56t^{14}u^7 + 66t^{11}u^{10} + 50t^8u^{13} + 36t^5u^{16} + 6t^2u^{19} + 11t^{18}u^2 + 36t^{15}u^5 + 48t^{12}u^8 + 74t^9u^{11} + \end{aligned}$$

$$37t^6u^{14} + 14t^3u^{17} + 3u^{20} + 2t^{19} + 10t^{16}u^3 + 43t^{13}u^6 + 59t^{10}u^9 + 41t^7u^{12} + 27t^4u^{15} + 3tu^{18} + 6t^{17}u + 27t^{14}u^4 + 39t^{11}u^7 + 61t^8u^{10} + 30t^5u^{13} + 8t^2u^{16} + 6t^{15}u^2 + 33t^{12}u^5 + 47t^9u^8 + 33t^6u^{11} + 18t^3u^{14} + 2t^{16} + 19t^{13}u^3 + 29t^{10}u^6 + 50t^7u^9 + 21t^4u^{12} + 3tu^{15} + t^{14}u + 23t^{11}u^4 + 34t^8u^7 + 24t^5u^{10} + 11t^2u^{13} + 11t^{12}u^2 + 22t^9u^5 + 37t^6u^8 + 13t^3u^{11} + 2u^{14} + 14t^{10}u^3 + 25t^7u^6 + 14t^4u^9 + 6tu^{12} + 6t^{11}u + 13t^8u^4 + 24t^5u^7 + 8t^2u^{10} + 8t^9u^2 + 15t^6u^5 + 9t^3u^8 + 2u^{11} + 3t^{10} + 6t^7u^3 + 15t^4u^6 + 3tu^9 + 5t^8u + 8t^5u^4 + 4t^2u^7 + 3t^6u^2 + 8t^3u^5 + t^7 + 4t^4u^3 + tu^6 + t^5u + 4t^2u^4 + t^3u^2 + 2tu^3 + u^2) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1) (u^2 + 1)$$

$$M_G(t, u)_{16} = M_G(u, t)_{15}$$

$$M_G(t, u)_{17} = t^{29}u^{27} + t^{26}u^{30} + t^{30}u^{25} + t^{27}u^{28} + 3t^{28}u^{26} + 3t^{25}u^{29} + 3t^{29}u^{24} + 2t^{26}u^{27} + t^{23}u^{30} + t^{30}u^{22} + 6t^{27}u^{25} + 7t^{24}u^{28} + 7t^{28}u^{23} + 6t^{25}u^{26} + 3t^{22}u^{29} + 2t^{29}u^{21} + 12t^{26}u^{24} + 12t^{23}u^{27} + 13t^{27}u^{22} + 12t^{24}u^{25} + 7t^{21}u^{28} + 7t^{28}u^{20} + 19t^{25}u^{23} + 20t^{22}u^{26} + 2t^{19}u^{29} + 3t^{29}u^{18} + 22t^{26}u^{21} + 19t^{23}u^{24} + 15t^{20}u^{27} + t^{17}u^{30} + 4t^{30}u^{16} + 13t^{27}u^{19} + 28t^{24}u^{22} + 30t^{21}u^{25} + 6t^{18}u^{28} + 6t^{28}u^{17} + 32t^{25}u^{20} + 29t^{22}u^{23} + 22t^{19}u^{26} + 6t^{16}u^{29} + 9t^{29}u^{15} + 20t^{26}u^{18} + 41t^{23}u^{21} + 42t^{20}u^{24} + 11t^{17}u^{27} + 4t^{14}u^{30} + t^{30}u^{13} + 11t^{27}u^{16} + 44t^{24}u^{19} + 40t^{21}u^{22} + 32t^{18}u^{25} + 9t^{15}u^{28} + 13t^{28}u^{14} + 30t^{25}u^{17} + 52t^{22}u^{20} + 55t^{19}u^{23} + 18t^{16}u^{26} + 7t^{13}u^{29} + 3t^{29}u^{12} + 18t^{26}u^{15} + 56t^{23}u^{18} + 48t^{20}u^{21} + 43t^{17}u^{24} + 15t^{14}u^{27} + 21t^{27}u^{13} + 37t^{24}u^{16} + 63t^{21}u^{19} + 68t^{18}u^{22} + 27t^{15}u^{25} + 12t^{12}u^{28} + 7t^{28}u^{11} + 27t^{25}u^{14} + 68t^{22}u^{17} + 57t^{19}u^{20} + 50t^{16}u^{23} + 24t^{13}u^{26} + t^{10}u^{29} + 2t^{29}u^9 + 29t^{26}u^{12} + 42t^{23}u^{15} + 72t^{20}u^{18} + 78t^{17}u^{21} + 32t^{14}u^{24} + 18t^{11}u^{27} + t^8u^{30} + t^{30}u^7 + 12t^{27}u^{10} + 35t^{24}u^{13} + 75t^{21}u^{16} + 63t^{18}u^{19} + 60t^{15}u^{22} + 32t^{12}u^{25} + 5t^9u^{28} + 6t^{28}u^8 + 36t^{25}u^{11} + 52t^{22}u^{14} + 78t^{19}u^{17} + 84t^{16}u^{20} + 40t^{13}u^{23} + 24t^{10}u^{26} + 3t^7u^{29} + 3t^{29}u^6 + 16t^{26}u^9 + 44t^{23}u^{12} + 81t^{20}u^{15} + 65t^{17}u^{18} + 67t^{14}u^{21} + 40t^{11}u^{24} + 8t^8u^{27} + t^5u^{30} + t^{30}u^4 + 7t^{27}u^7 + 45t^{24}u^{10} + 58t^{21}u^{13} + 80t^{18}u^{16} + 90t^{15}u^{19} + 47t^{12}u^{22} + 30t^9u^{25} + 5t^6u^{28} + 4t^{28}u^5 + 21t^{25}u^8 + 50t^{22}u^{11} + 86t^{19}u^{14} + 65t^{16}u^{17} + 71t^{13}u^{20} + 49t^{10}u^{23} + 9t^7u^{26} + 2t^4u^{29} + t^{29}u^3 + 9t^{26}u^6 + 51t^{23}u^9 + 63t^{20}u^{12} + 84t^{17}u^{15} + 95t^{14}u^{18} + 53t^{11}u^{21} + 35t^8u^{24} + 6t^5u^{27} + 5t^{27}u^4 + 23t^{24}u^7 + 54t^{21}u^{10} + 89t^{18}u^{13} + 66t^{15}u^{16} + 75t^{12}u^{19} + 50t^9u^{22} + 12t^6u^{25} + 2t^3u^{28} + t^{28}u^2 + 11t^{25}u^5 + 50t^{22}u^8 + 66t^{19}u^{11} + 85t^{16}u^{14} + 97t^{13}u^{17} + 55t^{10}u^{20} + 36t^7u^{23} + 7t^4u^{26} + 5t^{26}u^3 + 23t^{23}u^6 + 54t^{20}u^9 + 89t^{17}u^{12} + 66t^{14}u^{15} + 75t^{11}u^{18} + 50t^8u^{21} + 12t^5u^{24} + 2t^2u^{27} + t^{27}u + 9t^{24}u^4 + 51t^{21}u^7 + 63t^{18}u^{10} + 84t^{15}u^{13} + 95t^{12}u^{16} + 53t^9u^{19} + 35t^6u^{22} + 6t^3u^{25} + 4t^{25}u^2 + 21t^{22}u^5 + 50t^{19}u^8 + 86t^{16}u^{11} + 65t^{13}u^{14} + 71t^{10}u^{17} + 49t^7u^{20} + 9t^4u^{23} + 2tu^{26} + t^{26} + 7t^{23}u^3 + 45t^{20}u^6 + 58t^{17}u^9 + 80t^{14}u^{12} + 90t^{11}u^{15} + 47t^8u^{18} + 30t^5u^{21} + 5t^2u^{24} + 3t^{24}u + 16t^{21}u^4 + 44t^{18}u^7 + 81t^{15}u^{10} + 65t^{12}u^{13} + 67t^9u^{16} + 40t^6u^{19} + 8t^3u^{22} + u^{25} + 6t^{22}u^2 + 36t^{19}u^5 + 52t^{16}u^8 + 78t^{13}u^{11} + 84t^{10}u^{14} + 40t^7u^{17} + 24t^4u^{20} + 3tu^{23} + t^{23} + 12t^{20}u^3 + 35t^{17}u^6 + 75t^{14}u^9 + 63t^{11}u^{12} + 60t^8u^{15} + 32t^5u^{18} + 5t^2u^{21} + 2t^{21}u + 29t^{18}u^4 + 42t^{15}u^7 + 72t^{12}u^{10} + 78t^9u^{13} + 32t^6u^{16} + 18t^3u^{19} + u^{22} + 7t^{19}u^2 + 27t^{16}u^5 + 68t^{13}u^8 + 57t^{10}u^{11} + 50t^7u^{14} + 24t^4u^{17} + tu^{20} + 21t^{17}u^3 + 37t^{14}u^6 + 63t^{11}u^9 + 68t^8u^{12} + 27t^5u^{15} + 12t^2u^{18} + 3t^{18}u + 18t^{15}u^4 + 56t^{12}u^7 + 48t^9u^{10} + 43t^6u^{13} + 15t^3u^{16} + 13t^{16}u^2 + 30t^{13}u^5 + 52t^{10}u^8 + 55t^7u^{11} + 18t^4u^{14} + 7tu^{17} + t^{17} + 11t^{14}u^3 + 44t^{11}u^6 + 40t^8u^9 + 32t^5u^{12} + 9t^2u^{15} + 9t^{15}u + 20t^{12}u^4 + 41t^9u^7 + 42t^6u^{10} + 11t^3u^{13} + 4u^{16} + 6t^{13}u^2 + 32t^{10}u^5 + 29t^7u^8 + 22t^4u^{11} + 6tu^{14} + 4t^{14} + 13t^{11}u^3 + 28t^8u^6 + 30t^5u^9 + 6t^2u^{12} + 3t^{12}u + 22t^9u^4 + 19t^6u^7 + 15t^3u^{10} + u^{13} + 7t^{10}u^2 + 19t^7u^5 + 20t^4u^8 + 2tu^{11} + 13t^8u^3 + 12t^5u^6 + 7t^2u^9 + 2t^9u + 12t^6u^4 + 12t^3u^7 + 7t^7u^2 + 6t^4u^5 + 3tu^8 + t^8 + 6t^5u^3 + 7t^2u^6 + 3t^6u + 2t^3u^4 + u^7 + 3t^4u^2 + 3tu^5 + t^5 + t^2u^3 + t^3u + u^4) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1) (u^2 + 1)$$

$$M_G(t, u)_{18} = M_G(u, t)_{14}$$

$$M_G(t, u)_{19} = (t^{17}u^{17} + 2t^{16}u^{16} + 5t^{15}u^{15} + 2t^{16}u^{13} + 2t^{13}u^{16} + 2t^{17}u^{11} + 10t^{14}u^{14} + 2t^{11}u^{17} + 3t^{18}u^9 + 4t^{15}u^{12} + 4t^{12}u^{15} + 3t^9u^{18} + 5t^{16}u^{10} + 13t^{13}u^{13} + 5t^{10}u^{16} + 5t^{17}u^8 + 5t^{14}u^{11} + 5t^{11}u^{14} + 5t^8u^{17} + 6t^{15}u^9 + 20t^{12}u^{12} + 6t^9u^{15} + 7t^{16}u^7 + 9t^{13}u^{10} + 9t^{10}u^{13} + 7t^7u^{16} + 9t^{14}u^8 + 29t^{11}u^{11} + 9t^8u^{14} + 10t^{15}u^6 + 12t^{12}u^9 + 12t^9u^{12} + 10t^6u^{15} + t^{16}u^4 + 10t^{13}u^7 + 34t^{10}u^{10} + 10t^7u^{13} + t^4u^{16} + t^{17}u^2 + 11t^{14}u^5 + 10t^{11}u^8 + 10t^8u^{11} + 11t^5u^{14} + t^2u^{17} + 2t^{15}u^3 + 8t^{12}u^6 + 33t^9u^9 + 8t^6u^{12} + 2t^3u^{15} + t^{16}u + 11t^{13}u^4 + 10t^{10}u^7 + 10t^7u^{10} + 11t^4u^{13} + tu^{16} + t^{14}u^2 + 10t^{11}u^5 + 34t^8u^8 + 10t^5u^{11} + t^2u^{14} + 10t^{12}u^3 + 12t^9u^6 + 12t^6u^9 + 10t^3u^{12} + 9t^{10}u^4 + 29t^7u^7 + 9t^4u^{10} + 7t^{11}u^2 + 9t^8u^5 + 9t^5u^8 + 7t^2u^{11} + 6t^9u^3 + 20t^6u^6 + 6t^3u^9 + 5t^{10}u + 5t^7u^4 + 5t^4u^7 + 5tu^{10} + 5t^8u^2 + 13t^5u^5 + 5t^2u^8 + 3t^9 + 4t^6u^3 + 4t^3u^6 + 3u^9 + 2t^7u + 10t^4u^4 + 2tu^7 + 2t^5u^2 + 2t^2u^5 + 5t^3u^3 + 2t^2u^2 + tu) (t^6 - t^3 + 1) (u^6 - u^3 + 1) (t + 1)^2 (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1) (t^2 - t + 1)^2 (u + 1)^2 (u^2 - u + 1)^2 (u^2 + 1)$$

$$M_G(t, u)_{20} = (t^{15}u^{18} + t^{16}u^{16} + t^{17}u^{14} + 3t^{14}u^{17} + 2t^{18}u^{12} + 2t^{15}u^{15} + 3t^{16}u^{13} + 5t^{13}u^{16} + 5t^{17}u^{11} + 3t^{14}u^{14} + 4t^{15}u^{12} + 10t^{12}u^{15} + 8t^{16}u^{10} + 6t^{13}u^{13} + 3t^{10}u^{16} + 6t^{14}u^{11} + 17t^{11}u^{14} + 3t^8u^{17} + 13t^{15}u^9 + 8t^{12}u^{12} + 6t^9u^{15} +$$

$$\begin{aligned}
& 2t^6u^{18} + 2t^{16}u^7 + 10t^{13}u^{10} + 21t^{10}u^{13} + 5t^7u^{16} + 2t^{17}u^5 + 18t^{14}u^8 + 10t^{11}u^{11} + 5t^8u^{14} + 3t^5u^{17} + t^{18}u^3 + \\
& 4t^{15}u^6 + 12t^{12}u^9 + 26t^9u^{12} + 4t^6u^{15} + 3t^{16}u^4 + 19t^{13}u^7 + 15t^{10}u^{10} + 6t^7u^{13} + 4t^4u^{16} + t^{17}u^2 + 3t^{14}u^5 + \\
& 15t^{11}u^8 + 31t^8u^{11} + 6t^5u^{14} + 2t^{15}u^3 + 20t^{12}u^6 + 18t^9u^9 + 8t^6u^{12} + 5t^3u^{15} + t^{16}u + 3t^{13}u^4 + 15t^{10}u^7 + \\
& 31t^7u^{10} + 6t^4u^{13} + 3t^{14}u^2 + 19t^{11}u^5 + 15t^8u^8 + 6t^5u^{11} + 4t^2u^{14} + t^{15} + 4t^{12}u^3 + 12t^9u^6 + 26t^6u^9 + 4t^3u^{12} + \\
& 2t^{13}u + 18t^{10}u^4 + 10t^7u^7 + 5t^4u^{10} + 3tu^{13} + 2t^{11}u^2 + 10t^8u^5 + 21t^5u^8 + 5t^2u^{11} + 13t^9u^3 + 8t^6u^6 + 6t^3u^9 + \\
& 2u^{12} + 6t^7u^4 + 17t^4u^7 + 3tu^{10} + 8t^8u^2 + 6t^5u^5 + 3t^2u^8 + 4t^6u^3 + 10t^3u^6 + 5t^7u + 3t^4u^4 + 3t^5u^2 + 5t^2u^5 + \\
& 2t^6 + 2t^3u^3 + t^4u + 3tu^4 + t^2u^2 + u^3) (t^6 - t^3 + 1) (u^6 - u^3 + 1) (t + 1)^2 (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1) \\
& (t^2 - t + 1)^2 (u + 1)^2 (u^2 - u + 1)^2 (u^2 + 1)
\end{aligned}$$

$$M_G(t, u)_{21} = M_G(u, t)_{20}$$

$$\begin{aligned}
M_G(t, u)_{22} = & (t^{17}u^{16} + t^{15}u^{17} + 3t^{16}u^{15} + t^{13}u^{18} + t^{17}u^{13} + 2t^{14}u^{16} + 2t^{18}u^{11} + 6t^{15}u^{14} + 3t^{12}u^{17} + \\
& 3t^{16}u^{12} + 4t^{13}u^{15} + 3t^{17}u^{10} + 10t^{14}u^{13} + 6t^{11}u^{16} + 4t^{15}u^{11} + 6t^{12}u^{14} + t^9u^{17} + 6t^{16}u^9 + 14t^{13}u^{12} + \\
& 9t^{10}u^{15} + 2t^7u^{18} + 2t^{17}u^7 + 6t^{14}u^{10} + 8t^{11}u^{13} + 3t^8u^{16} + t^{18}u^5 + 9t^{15}u^8 + 16t^{12}u^{11} + 12t^9u^{14} + 3t^6u^{17} + \\
& 3t^{16}u^6 + 7t^{13}u^9 + 9t^{10}u^{12} + 4t^7u^{15} + 2t^{17}u^4 + 12t^{14}u^7 + 18t^{11}u^{10} + 15t^8u^{13} + 5t^5u^{16} + 4t^{15}u^5 + 9t^{12}u^8 + \\
& 10t^9u^{11} + 6t^6u^{14} + t^3u^{17} + 3t^{16}u^3 + 14t^{13}u^6 + 18t^{10}u^9 + 16t^7u^{12} + 6t^4u^{15} + 4t^{14}u^4 + 8t^{11}u^7 + 9t^8u^{10} + \\
& 6t^5u^{13} + t^2u^{16} + 3t^{15}u^2 + 14t^{12}u^5 + 18t^9u^8 + 16t^6u^{11} + 6t^3u^{14} + 4t^{13}u^3 + 9t^{10}u^6 + 10t^7u^9 + 6t^4u^{12} + \\
& tu^{15} + 2t^{14}u + 12t^{11}u^4 + 18t^8u^7 + 15t^5u^{10} + 5t^2u^{13} + 3t^{12}u^2 + 7t^9u^5 + 9t^6u^8 + 4t^3u^{11} + t^{13} + 9t^{10}u^3 + \\
& 16t^7u^6 + 12t^4u^9 + 3tu^{12} + 2t^{11}u + 6t^8u^4 + 8t^5u^7 + 3t^2u^{10} + 6t^9u^2 + 14t^6u^5 + 9t^3u^8 + 2u^{11} + 4t^7u^3 + \\
& 6t^4u^6 + tu^9 + 3t^8u + 10t^5u^4 + 6t^2u^7 + 3t^6u^2 + 4t^3u^5 + 2t^7 + 6t^4u^3 + 3tu^6 + t^5u + 2t^2u^4 + 3t^3u^2 + u^5 + \\
& tu^3 + t^2u) (t^6 - t^3 + 1) (u^6 - u^3 + 1) (u^6 + u^3 + 1)^2 (t^6 + t^3 + 1)^2
\end{aligned}$$

$$M_G(t, u)_{23} = M_G(u, t)_{22}$$

The Poincaré series of the invariant ring is

$$P_G(t, 0)_0 = P_G(0, t)_0 = \frac{-t^{18} - t^{36} - 1}{(t-1)^3 (t^6 - t^3 + 1) (t^2 + t + 1)^3 (t+1)^2 (t^2 + 1) (t^4 - t^2 + 1) (t^2 - t + 1)^2 (t^6 + t^3 + 1)^2}$$

4 Type H

$$D_H(t) = (t-1)^3 (t^2 + t + 1) (t^4 + t^3 + t^2 + t + 1) (t+1)^2$$

$$\begin{aligned}
M_H(t, u)_0 = & t^8u^8 + t^8u^7 + t^7u^8 + 2t^7u^7 - t^8u^5 + t^7u^6 + t^6u^7 - t^5u^8 - t^8u^4 - t^7u^5 + 2t^6u^6 - t^5u^7 - t^4u^8 - \\
& t^8u^3 - 2t^7u^4 + t^6u^5 + t^5u^6 - 2t^4u^7 - t^3u^8 - t^7u^3 + 4t^5u^5 - t^3u^7 + t^8u + t^7u^2 + t^6u^3 + 5t^5u^4 + 5t^4u^5 + \\
& t^3u^6 + t^2u^7 + tu^8 + t^8 + 2t^7u + 2t^6u^2 + 4t^5u^3 + 8t^4u^4 + 4t^3u^5 + 2t^2u^6 + 2tu^7 + u^8 + t^7 + t^6u + t^5u^2 + \\
& 5t^4u^3 + 5t^3u^4 + t^2u^5 + tu^6 + u^7 - t^5u + 4t^3u^3 - tu^5 - t^5 - 2t^4u + t^3u^2 + t^2u^3 - 2tu^4 - u^5 - t^4 - t^3u + \\
& 2t^2u^2 - tu^3 - u^4 - t^3 + t^2u + tu^2 - u^3 + 2tu + t + u + 1
\end{aligned}$$

$$M_H(t, u)_1 = (t^6u^3 + t^5u^4 + t^4u^5 + t^3u^6 + t^5u^3 + t^4u^4 + t^3u^5 + t^5u^2 + t^2u^5 + t^4u^2 + t^2u^4 + t^4u + tu^4 + t^3u + t^2u^2 + tu^3 + t^3 + t^2u + tu^2 + u^3) (u^2 + u + 1) (t^2 + t + 1)$$

$$M_H(t, u)_2 = (t^6u^5 + t^5u^6 + t^5u^5 - t^6u^3 - t^3u^6 - t^5u^3 + t^4u^4 - t^3u^5 + t^6u + 2t^4u^3 + 2t^3u^4 + tu^6 + t^5u + t^4u^2 + 4t^3u^3 + t^2u^4 + tu^5 + t^5 + 2t^3u^2 + 2t^2u^3 + u^5 - t^3u + t^2u^2 - tu^3 - t^3 - u^3 + tu + t + u) (u^2 + u + 1) (t^2 + t + 1)$$

$$M_H(t, u)_3 = (t^6u^3 + t^5u^4 + t^4u^5 + t^3u^6 + t^5u^2 + t^4u^3 + t^3u^4 + t^2u^5 - t^3u^3 + t^4u + t^3u^2 + t^2u^3 + tu^4 + t^3 + t^2u + tu^2 + u^3) (u+1)^2 (t+1)^2$$

$$M_H(t, u)_4 = (t^4u^2 + t^3u^3 + t^2u^4 + t^3u^2 + t^2u^3 + t^3u + tu^3 + t^2u + tu^2 + t^2 + tu + u^2) (u^4 + u^3 + u^2 + u + 1) (t^4 + t^3 + t^2 + t + 1)$$

The Poincaré series of the invariant ring is

$$P_H(t, 0)_0 = P_H(0, t)_0 = \frac{-t^8 - t^7 + t^5 + t^4 + t^3 - t - 1}{(t-1)^3 (t^2 + t + 1) (t^4 + t^3 + t^2 + t + 1) (t+1)^2}$$

5 Type I

$$D_I(t) = (t-1)^3 (t^2+t+1) (t^6+t^5+t^4+t^3+t^2+t+1) (t^2+1) (t+1)^2$$

$$\begin{aligned} M_I(t, u)_0 = & t^{12}u^{12} + t^{12}u^{11} + t^{11}u^{12} + 2t^{11}u^{11} - t^{12}u^9 + t^{11}u^{10} + t^{10}u^{11} - t^9u^{12} - t^{12}u^8 - t^{11}u^9 + 2t^{10}u^{10} - \\ & t^9u^{11} - t^8u^{12} - 2t^{11}u^8 + t^{10}u^9 + t^9u^{10} - 2t^8u^{11} + t^{12}u^6 - t^{11}u^7 + 4t^9u^9 - t^7u^{11} + t^6u^{12} + t^{11}u^6 - t^{10}u^7 + \\ & 4t^9u^8 + 4t^8u^9 - t^7u^{10} + t^6u^{11} - t^{12}u^4 + t^{11}u^5 + 2t^9u^7 + 6t^8u^8 + 2t^7u^9 + t^5u^{11} - t^4u^{12} - t^{12}u^3 + t^{10}u^5 + \\ & 5t^8u^7 + 5t^7u^8 + t^5u^{10} - t^3u^{12} + 2t^{10}u^4 + 2t^8u^6 + 7t^7u^7 + 2t^6u^8 + 2t^4u^{10} + t^{12}u + 2t^{10}u^3 + 2t^9u^4 + \\ & t^8u^5 + 5t^7u^6 + 5t^6u^7 + t^5u^8 + 2t^4u^9 + 2t^3u^{10} + tu^{12} + t^{12} + t^{11}u + t^{10}u^2 + 3t^9u^3 + 2t^8u^4 + 3t^7u^5 + \\ & 6t^6u^6 + 3t^5u^7 + 2t^4u^8 + 3t^3u^9 + t^2u^{10} + tu^{11} + u^{12} + t^{11} + 2t^9u^2 + 2t^8u^3 + t^7u^4 + 5t^6u^5 + 5t^5u^6 + \\ & t^4u^7 + 2t^3u^8 + 2t^2u^9 + u^{11} + 2t^8u^2 + 2t^6u^4 + 7t^5u^5 + 2t^4u^6 + 2t^2u^8 - t^9 + t^7u^2 + 5t^5u^4 + 5t^4u^5 + t^2u^7 - \\ & u^9 - t^8 + t^7u + 2t^5u^3 + 6t^4u^4 + 2t^3u^5 + tu^7 - u^8 + t^6u - t^5u^2 + 4t^4u^3 + 4t^3u^4 - t^2u^5 + tu^6 + t^6 - t^5u + \\ & 4t^3u^3 - tu^5 + u^6 - 2t^4u + t^3u^2 + t^2u^3 - 2tu^4 - t^4 - t^3u + 2t^2u^2 - tu^3 - u^4 - t^3 + t^2u + tu^2 - u^3 + 2tu + t + u + 1 \end{aligned}$$

$$\begin{aligned} M_I(t, u)_1 = & (t^9u^{10} + t^{10}u^7 - t^9u^8 + t^8u^9 - t^7u^{10} + t^7u^9 + t^9u^6 - t^8u^7 + 3t^7u^8 + t^9u^5 + t^8u^6 + t^6u^8 - t^{10}u^3 + \\ & t^9u^4 + t^8u^5 + 2t^6u^7 + t^5u^8 + t^3u^{10} + t^8u^4 + t^6u^6 + 2t^5u^7 + t^4u^8 - t^3u^9 + t^{10}u - t^9u^2 + 3t^8u^3 + t^6u^5 + \\ & t^5u^6 + 2t^4u^7 - t^3u^8 + t^2u^9 + 2t^7u^3 + t^6u^4 + t^5u^5 + t^4u^6 + 2t^3u^7 + tu^9 + t^9 - t^8u + 3t^7u^2 + t^5u^4 + t^4u^5 + \\ & 2t^3u^6 - t^2u^7 + tu^8 + t^6u^2 + t^4u^4 + 2t^3u^5 + t^2u^6 - tu^7 - t^7 + t^6u + t^5u^2 + 2t^3u^4 + t^2u^5 + u^7 + t^5u + t^4u^2 + \\ & t^2u^4 + t^4u - t^3u^2 + 3t^2u^3 + tu^3 + t^3 - t^2u + tu^2 - u^3 + u) (u^2 + u + 1) (t^2 + t + 1) \end{aligned}$$

$$M_I(t, u)_2 = M_I(u, t)_1$$

$$\begin{aligned} M_I(t, u)_3 = & (t^8u^6 + t^6u^8 - t^8u^4 + 2t^7u^5 - 2t^6u^6 + 2t^5u^7 - t^4u^8 + t^7u^4 + t^6u^5 + t^5u^6 + t^4u^7 + t^8u^2 - t^7u^3 + \\ & 4t^6u^4 - 4t^5u^5 + 4t^4u^6 - t^3u^7 + t^2u^8 + t^6u^3 + t^3u^6 + t^7u - 2t^6u^2 + 5t^5u^3 - 4t^4u^4 + 5t^3u^5 - 2t^2u^6 + tu^7 + \\ & t^5u^2 + t^2u^5 + t^6 - t^5u + 4t^4u^2 - 4t^3u^3 + 4t^2u^4 - tu^5 + u^6 + t^4u + t^3u^2 + t^2u^3 + tu^4 - t^4 + 2t^3u - 2t^2u^2 + \\ & 2tu^3 - u^4 + t^2 + u^2) (u^2 + u + 1) (u^2 + 1) (t^2 + t + 1) (t^2 + 1) \end{aligned}$$

$$\begin{aligned} M_I(t, u)_4 = & (t^6u^3 + t^5u^4 + t^4u^5 + t^3u^6 + t^5u^3 + t^4u^4 + t^3u^5 + t^5u^2 + t^4u^3 + t^3u^4 + t^2u^5 + t^4u^2 + t^2u^4 + t^4u + t^3u^2 + \\ & t^2u^3 + tu^4 + t^3u + t^2u^2 + tu^3 + t^3 + t^2u + tu^2 + u^3) (u^6 + u^5 + u^4 + u^3 + u^2 + u + 1) (t^6 + t^5 + t^4 + t^3 + t^2 + t + 1) \end{aligned}$$

$$\begin{aligned} M_I(t, u)_5 = & (t^7u^7 + t^8u^4 + t^6u^6 + t^4u^8 - t^7u^4 + t^6u^5 + t^5u^6 - t^4u^7 + t^7u^3 + t^5u^5 + t^3u^7 + t^7u^2 + t^2u^7 + 3t^4u^4 + \\ & t^6u + tu^6 + t^5u + t^3u^3 + tu^5 - t^4u + t^3u^2 + t^2u^3 - tu^4 + t^4 + t^2u^2 + u^4 + tu) (u^2 + 1) (u + 1)^2 (t^2 + 1) (t + 1)^2 \end{aligned}$$

The Poincaré series of the invariant ring is

$$P_I(t, 0)_0 = P_I(0, t)_0 = \frac{-t^{12} - t^{11} + t^9 + t^8 - t^6 + t^4 + t^3 - t - 1}{(t-1)^3 (t^2+t+1) (t^6+t^5+t^4+t^3+t^2+t+1) (t^2+1) (t+1)^2}$$

6 Type J

$$D_J(t) = (t^4 + t^3 + t^2 + t + 1) (t^8 - t^7 + t^5 - t^4 + t^3 - t + 1) (t + 1)^2 (t^2 - t + 1)^2 (t - 1)^3 (t^2 + t + 1)^3$$

$$\begin{aligned} M_J(t, u)_0 = & t^{24}u^{24} + t^{23}u^{23} + 2t^{22}u^{22} + 3t^{21}u^{21} + t^{22}u^{19} + t^{19}u^{22} + t^{23}u^{17} + 6t^{20}u^{20} + t^{17}u^{23} + 3t^{21}u^{18} + \\ & 3t^{18}u^{21} + 3t^{22}u^{16} + 10t^{19}u^{19} + 3t^{16}u^{22} + 2t^{23}u^{14} + 6t^{20}u^{17} + 6t^{17}u^{20} + 2t^{14}u^{23} + t^{24}u^{12} + 6t^{21}u^{15} + \\ & 14t^{18}u^{18} + 6t^{15}u^{21} + t^{12}u^{24} + 3t^{22}u^{13} + 10t^{19}u^{16} + 10t^{16}u^{19} + 3t^{13}u^{22} + 2t^{23}u^{11} + 9t^{20}u^{14} + 18t^{17}u^{17} + \\ & 9t^{14}u^{20} + 2t^{11}u^{23} + 6t^{21}u^{12} + 15t^{18}u^{15} + 15t^{15}u^{18} + 6t^{12}u^{21} + 4t^{22}u^{10} + 12t^{19}u^{13} + 20t^{16}u^{16} + 12t^{13}u^{19} + \\ & 4t^{10}u^{22} + t^{23}u^8 + 9t^{20}u^{11} + 18t^{17}u^{14} + 18t^{14}u^{17} + 9t^{11}u^{20} + t^8u^{23} + 6t^{21}u^9 + 14t^{18}u^{12} + 21t^{15}u^{15} + 14t^{12}u^{18} + \\ & 6t^9u^{21} + 2t^{22}u^7 + 13t^{19}u^{10} + 21t^{16}u^{13} + 21t^{13}u^{16} + 13t^{10}u^{19} + 2t^7u^{22} + 2t^{23}u^5 + 9t^{20}u^8 + 17t^{17}u^{11} + \\ & 22t^{14}u^{14} + 17t^{11}u^{17} + 9t^8u^{20} + 2t^5u^{23} + 3t^{21}u^6 + 15t^{18}u^9 + 21t^{15}u^{12} + 21t^{12}u^{15} + 15t^9u^{18} + 3t^6u^{21} + \\ & 3t^{22}u^4 + 12t^{19}u^7 + 19t^{16}u^{10} + 23t^{13}u^{13} + 19t^{10}u^{16} + 12t^7u^{19} + 3t^4u^{22} + 3t^{20}u^5 + 16t^{17}u^8 + 21t^{14}u^{11} + \\ & 21t^{11}u^{14} + 16t^8u^{17} + 3t^5u^{20} + t^{24} + 3t^{21}u^3 + 14t^{18}u^6 + 21t^{15}u^9 + 24t^{12}u^{12} + 21t^9u^{15} + 14t^6u^{18} + 3t^3u^{21} + \\ & u^{24} + 3t^{19}u^4 + 16t^{16}u^7 + 21t^{13}u^{10} + 21t^{10}u^{13} + 16t^7u^{16} + 3t^4u^{19} + 3t^{20}u^2 + 12t^{17}u^5 + 19t^{14}u^8 + 23t^{11}u^{11} + \\ & 19t^8u^{14} + 12t^5u^{17} + 3t^2u^{20} + 3t^{18}u^3 + 15t^{15}u^6 + 21t^{12}u^9 + 21t^9u^{12} + 15t^6u^{15} + 3t^3u^{18} + 2t^{19}u + 9t^{16}u^4 + \\ & 17t^{13}u^7 + 22t^{10}u^{10} + 17t^7u^{13} + 9t^4u^{16} + 2tu^{19} + 2t^{17}u^2 + 13t^{14}u^5 + 21t^{11}u^8 + 21t^8u^{11} + 13t^5u^{14} + 2t^2u^{17} + \end{aligned}$$

$$6t^{15}u^3 + 14t^{12}u^6 + 21t^9u^9 + 14t^6u^{12} + 6t^3u^{15} + t^{16}u + 9t^{13}u^4 + 18t^{10}u^7 + 18t^7u^{10} + 9t^4u^{13} + tu^{16} + 4t^{14}u^2 + 12t^{11}u^5 + 20t^8u^8 + 12t^5u^{11} + 4t^2u^{14} + 6t^{12}u^3 + 15t^9u^6 + 15t^6u^9 + 6t^3u^{12} + 2t^{13}u + 9t^{10}u^4 + 18t^7u^7 + 9t^4u^{10} + 2tu^{13} + 3t^{11}u^2 + 10t^8u^5 + 10t^5u^8 + 3t^2u^{11} + t^{12} + 6t^9u^3 + 14t^6u^6 + 6t^3u^9 + u^{12} + 2t^{10}u + 6t^7u^4 + 6t^4u^7 + 2tu^{10} + 3t^8u^2 + 10t^5u^5 + 3t^2u^8 + 3t^6u^3 + 3t^3u^6 + t^7u + 6t^4u^4 + tu^7 + t^5u^2 + t^2u^5 + 3t^3u^3 + 2t^2u^2 + tu + 1$$

$$M_J(t, u)_1 = t^{24}u^{22} + t^{23}u^{21} + t^{20}u^{24} + 3t^{22}u^{20} + 2t^{19}u^{23} + t^{23}u^{18} + t^{20}u^{21} + 5t^{21}u^{19} + 3t^{18}u^{22} + 2t^{22}u^{17} + 3t^{19}u^{20} + t^{16}u^{23} + 2t^{23}u^{15} + 8t^{20}u^{18} + 6t^{17}u^{21} + t^{14}u^{24} + 5t^{21}u^{16} + 7t^{18}u^{19} + 3t^{15}u^{22} + 4t^{22}u^{14} + 12t^{19}u^{17} + 9t^{16}u^{20} + 2t^{13}u^{23} + t^{23}u^{12} + 8t^{20}u^{15} + 11t^{17}u^{18} + 6t^{14}u^{21} + t^{24}u^{10} + 6t^{21}u^{13} + 16t^{18}u^{16} + 13t^{15}u^{19} + 4t^{12}u^{22} + 3t^{22}u^{11} + 13t^{19}u^{14} + 16t^{16}u^{17} + 9t^{13}u^{20} + 2t^{10}u^{23} + 2t^{23}u^9 + 9t^{20}u^{12} + 18t^{17}u^{15} + 15t^{14}u^{18} + 6t^{11}u^{21} + 6t^{21}u^{10} + 17t^{18}u^{13} + 19t^{15}u^{16} + 13t^{12}u^{19} + 3t^9u^{22} + 3t^{22}u^8 + 12t^{19}u^{11} + 19t^{16}u^{14} + 17t^{13}u^{17} + 9t^{10}u^{20} + t^7u^{23} + t^{23}u^6 + 8t^{20}u^9 + 20t^{17}u^{12} + 21t^{14}u^{15} + 17t^{11}u^{18} + 5t^8u^{21} + t^{24}u^4 + 6t^{21}u^7 + 15t^{18}u^{10} + 21t^{15}u^{13} + 19t^{12}u^{16} + 13t^9u^{19} + 3t^6u^{22} + t^{22}u^5 + 10t^{19}u^8 + 21t^{16}u^{11} + 21t^{13}u^{14} + 18t^{10}u^{17} + 6t^7u^{20} + t^{23}u^3 + 8t^{20}u^6 + 18t^{17}u^9 + 22t^{14}u^{12} + 21t^{11}u^{15} + 16t^8u^{18} + 5t^5u^{21} + t^2u^{24} + t^{21}u^4 + 11t^{18}u^7 + 21t^{15}u^{10} + 20t^{12}u^{13} + 19t^9u^{16} + 7t^6u^{19} + 2t^{22}u^2 + 10t^{19}u^5 + 20t^{16}u^8 + 23t^{13}u^{11} + 22t^{10}u^{14} + 18t^7u^{17} + 6t^4u^{20} + tu^{23} + t^{20}u^3 + 11t^{17}u^6 + 21t^{14}u^9 + 20t^{11}u^{12} + 19t^8u^{15} + 7t^5u^{18} + t^{21}u + 8t^{18}u^4 + 18t^{15}u^7 + 22t^{12}u^{10} + 21t^9u^{13} + 16t^6u^{16} + 5t^3u^{19} + u^{22} + t^{19}u^2 + 10t^{16}u^5 + 21t^{13}u^8 + 21t^{10}u^{11} + 18t^7u^{14} + 6t^4u^{17} + t^{20} + 6t^{17}u^3 + 15t^{14}u^6 + 21t^{11}u^9 + 19t^8u^{12} + 13t^5u^{15} + 3t^2u^{18} + t^{18}u + 8t^{15}u^4 + 20t^{12}u^7 + 21t^9u^{10} + 17t^6u^{13} + 5t^3u^{16} + 3t^{16}u^2 + 12t^{13}u^5 + 19t^{10}u^8 + 17t^7u^{11} + 9t^4u^{14} + tu^{17} + 6t^{14}u^3 + 17t^{11}u^6 + 19t^8u^9 + 13t^5u^{12} + 3t^2u^{15} + 2t^{15}u + 9t^{12}u^4 + 18t^9u^7 + 15t^6u^{10} + 6t^3u^{13} + 3t^{13}u^2 + 13t^{10}u^5 + 16t^7u^8 + 9t^4u^{11} + 2tu^{14} + t^{14} + 6t^{11}u^3 + 16t^8u^6 + 13t^5u^9 + 4t^2u^{12} + t^{12}u + 8t^9u^4 + 11t^6u^7 + 6t^3u^{10} + 4t^{10}u^2 + 12t^7u^5 + 9t^4u^8 + 2tu^{11} + 5t^8u^3 + 7t^5u^6 + 3t^2u^9 + 2t^9u + 8t^6u^4 + 6t^3u^7 + u^{10} + 2t^7u^2 + 3t^4u^5 + tu^8 + 5t^5u^3 + 3t^2u^6 + t^6u + t^3u^4 + 3t^4u^2 + 2tu^5 + t^3u + u^4 + t^2$$

$$M_J(t, u)_2 = M_J(u, t)_1$$

$$M_J(t, u)_3 = t^{24}u^{21} + t^{21}u^{24} + t^{22}u^{22} + 3t^{23}u^{20} + 3t^{20}u^{23} + 4t^{21}u^{21} + 8t^{22}u^{19} + 8t^{19}u^{22} + 4t^{23}u^{17} + 9t^{20}u^{20} + 4t^{17}u^{23} + 2t^{24}u^{15} + 14t^{21}u^{18} + 14t^{18}u^{21} + 2t^{15}u^{24} + 9t^{22}u^{16} + 20t^{19}u^{19} + 9t^{16}u^{22} + 5t^{23}u^{14} + 24t^{20}u^{17} + 24t^{17}u^{20} + 5t^{14}u^{23} + 3t^{24}u^{12} + 17t^{21}u^{15} + 35t^{18}u^{18} + 17t^{15}u^{21} + 3t^{12}u^{24} + 10t^{22}u^{13} + 35t^{19}u^{16} + 35t^{16}u^{19} + 10t^{13}u^{22} + 6t^{23}u^{11} + 27t^{20}u^{14} + 45t^{17}u^{17} + 27t^{14}u^{20} + 6t^{11}u^{23} + 2t^{24}u^9 + 18t^{21}u^{12} + 46t^{18}u^{15} + 46t^{15}u^{18} + 18t^{12}u^{21} + 2t^9u^{24} + 11t^{22}u^{10} + 37t^{19}u^{13} + 55t^{16}u^{16} + 37t^{13}u^{19} + 11t^{10}u^{22} + 6t^{23}u^8 + 27t^{20}u^{11} + 55t^{17}u^{14} + 55t^{14}u^{17} + 27t^{11}u^{20} + 6t^8u^{23} + 17t^{21}u^9 + 44t^{18}u^{12} + 61t^{15}u^{15} + 44t^{12}u^{18} + 17t^9u^{21} + 11t^{22}u^7 + 38t^{19}u^{10} + 61t^{16}u^{13} + 61t^{13}u^{16} + 38t^{10}u^{19} + 11t^7u^{22} + 2t^{23}u^5 + 24t^{20}u^8 + 52t^{17}u^{11} + 65t^{14}u^{14} + 52t^{11}u^{17} + 24t^8u^{20} + 2t^5u^{23} + t^{24}u^3 + 14t^{21}u^6 + 46t^{18}u^9 + 63t^{15}u^{12} + 63t^{12}u^{15} + 46t^9u^{18} + 14t^6u^{21} + t^3u^{24} + 3t^{22}u^4 + 31t^{19}u^7 + 59t^{16}u^{10} + 67t^{13}u^{13} + 59t^{10}u^{16} + 31t^7u^{19} + 3t^4u^{22} + t^{23}u^2 + 18t^{20}u^5 + 48t^{17}u^8 + 64t^{14}u^{11} + 64t^{11}u^{14} + 48t^8u^{17} + 18t^5u^{20} + t^2u^{23} + 4t^{21}u^3 + 35t^{18}u^6 + 61t^{15}u^9 + 68t^{12}u^{12} + 61t^9u^{15} + 35t^6u^{18} + 4t^3u^{21} + t^{22}u + 18t^{19}u^4 + 48t^{16}u^7 + 64t^{13}u^{10} + 64t^{10}u^{13} + 48t^7u^{16} + 18t^4u^{19} + tu^{22} + 3t^{20}u^2 + 31t^{17}u^5 + 59t^{14}u^8 + 67t^{11}u^{11} + 59t^8u^{14} + 31t^5u^{17} + 3t^2u^{20} + t^{21} + 14t^{18}u^3 + 46t^{15}u^6 + 63t^{12}u^9 + 63t^9u^{12} + 46t^6u^{15} + 14t^3u^{18} + u^{21} + 2t^{19}u + 24t^{16}u^4 + 52t^{13}u^7 + 65t^{10}u^{10} + 52t^7u^{13} + 24t^4u^{16} + 2tu^{19} + 11t^{17}u^2 + 38t^{14}u^5 + 61t^{11}u^8 + 61t^8u^{11} + 38t^5u^{14} + 11t^2u^{17} + 17t^{15}u^3 + 44t^{12}u^6 + 61t^9u^9 + 44t^6u^{12} + 17t^3u^{15} + 6t^{16}u + 27t^{13}u^4 + 55t^{10}u^7 + 55t^7u^{10} + 27t^4u^{13} + 6tu^{16} + 11t^{14}u^2 + 37t^{11}u^5 + 55t^8u^8 + 37t^5u^{11} + 11t^2u^{14} + 2t^{15} + 18t^{12}u^3 + 46t^9u^6 + 46t^6u^9 + 18t^3u^{12} + 2u^{15} + 6t^{13}u + 27t^{10}u^4 + 45t^7u^7 + 27t^4u^{10} + 6tu^{13} + 10t^{11}u^2 + 35t^8u^5 + 35t^5u^8 + 10t^2u^{11} + 3t^{12} + 17t^9u^3 + 35t^6u^6 + 17t^3u^9 + 3u^{12} + 5t^{10}u + 24t^7u^4 + 24t^4u^7 + 5tu^{10} + 9t^8u^2 + 20t^5u^5 + 9t^2u^8 + 2t^9 + 14t^6u^3 + 14t^3u^6 + 2u^9 + 4t^7u + 9t^4u^4 + 4tu^7 + 8t^5u^2 + 8t^2u^5 + 4t^3u^3 + 3t^4u + 3tu^4 + t^2u^2 + t^3 + u^3$$

$$M_J(t, u)_4 = t^{23}u^{23} + t^{24}u^{21} + t^{21}u^{24} + t^{22}u^{22} + 3t^{23}u^{20} + 3t^{20}u^{23} + t^{24}u^{18} + 4t^{21}u^{21} + t^{18}u^{24} + 8t^{22}u^{19} + 8t^{19}u^{22} + 3t^{23}u^{17} + 9t^{20}u^{20} + 3t^{17}u^{23} + 2t^{24}u^{15} + 14t^{21}u^{18} + 14t^{18}u^{21} + 2t^{15}u^{24} + 9t^{22}u^{16} + 20t^{19}u^{19} + 9t^{16}u^{22} + 6t^{23}u^{14} + 24t^{20}u^{17} + 24t^{17}u^{20} + 6t^{14}u^{23} + t^{24}u^{12} + 17t^{21}u^{15} + 32t^{18}u^{18} + 17t^{15}u^{21} + t^{12}u^{24} + 11t^{22}u^{13} + 35t^{19}u^{16} + 35t^{16}u^{19} + 11t^{13}u^{22} + 5t^{23}u^{11} + 27t^{20}u^{14} + 45t^{17}u^{17} + 27t^{14}u^{20} + 5t^{11}u^{23} + 2t^{24}u^9 + 18t^{21}u^{12} + 46t^{18}u^{15} + 46t^{15}u^{18} + 18t^{12}u^{21} + 2t^9u^{24} + 11t^{22}u^{10} + 38t^{19}u^{13} + 55t^{16}u^{16} + 38t^{13}u^{19} + 11t^{10}u^{22} + 4t^{23}u^8 + 27t^{20}u^{11} + 53t^{17}u^{14} + 53t^{14}u^{17} + 27t^{11}u^{20} + 4t^8u^{23} + t^{24}u^6 + 17t^{21}u^9 + 48t^{18}u^{12} + 61t^{15}u^{15} + 48t^{12}u^{18} + 17t^9u^{21} + t^6u^{24} + 9t^{22}u^7 + 38t^{19}u^{10} + 59t^{16}u^{13} + 59t^{13}u^{16} + 38t^{10}u^{19} + 9t^7u^{22} + 3t^{23}u^5 + 24t^{20}u^8 + 55t^{17}u^{11} + 65t^{14}u^{14} + 55t^{11}u^{17} + 24t^8u^{20} + 3t^5u^{23} + t^{24}u^3 + 14t^{21}u^6 + 46t^{18}u^9 + 63t^{15}u^{12} + 63t^{12}u^{15} + 46t^9u^{18} + 14t^6u^{21} + t^3u^{24} + 3t^{22}u^4 + 29t^{19}u^7 + 59t^{16}u^{10} + 64t^{13}u^{13} + 59t^{10}u^{16} + 29t^7u^{19} + 3t^4u^{22} + 2t^{23}u^2 + 18t^{20}u^5 + 52t^{17}u^8 + 65t^{14}u^{11} + 65t^{11}u^{14} + 52t^8u^{17} + 18t^5u^{20} + 2t^2u^{23} + 4t^{21}u^3 + 32t^{18}u^6 + 61t^{15}u^9 + 64t^{12}u^{12} + 61t^9u^{15} + 32t^6u^{18} + 4t^3u^{21} + 2t^{22}u + 18t^{19}u^4 + 52t^{16}u^7 + 65t^{13}u^{10} + 65t^{10}u^{13} + 52t^7u^{16} + 18t^4u^{19} + 2tu^{22} + 3t^{20}u^2 + 29t^{17}u^5 + 59t^{14}u^8 + 64t^{11}u^{11} + 59t^8u^{14} + 29t^5u^{17} +$$

$$\begin{aligned}
& 3t^2u^{20} + t^{21} + 14t^{18}u^3 + 46t^{15}u^6 + 63t^{12}u^9 + 63t^9u^{12} + 46t^6u^{15} + 14t^3u^{18} + u^{21} + 3t^{19}u + 24t^{16}u^4 + \\
& 55t^{13}u^7 + 65t^{10}u^{10} + 55t^7u^{13} + 24t^4u^{16} + 3tu^{19} + 9t^{17}u^2 + 38t^{14}u^5 + 59t^{11}u^8 + 59t^8u^{11} + 38t^5u^{14} + \\
& 9t^2u^{17} + t^{18} + 17t^{15}u^3 + 48t^{12}u^6 + 61t^9u^9 + 48t^6u^{12} + 17t^3u^{15} + u^{18} + 4t^{16}u + 27t^{13}u^4 + 53t^{10}u^7 + 53t^7u^{10} + \\
& 27t^4u^{13} + 4tu^{16} + 11t^{14}u^2 + 38t^{11}u^5 + 55t^8u^8 + 38t^5u^{11} + 11t^2u^{14} + 2t^{15} + 18t^{12}u^3 + 46t^9u^6 + 46t^6u^9 + \\
& 18t^3u^{12} + 2u^{15} + 5t^{13}u + 27t^{10}u^4 + 45t^7u^7 + 27t^4u^{10} + 5tu^{13} + 11t^{11}u^2 + 35t^8u^5 + 35t^5u^8 + 11t^2u^{11} + \\
& t^{12} + 17t^9u^3 + 32t^6u^6 + 17t^3u^9 + u^{12} + 6t^{10}u + 24t^7u^4 + 24t^4u^7 + 6tu^{10} + 9t^8u^2 + 20t^5u^5 + 9t^2u^8 + 2t^9 + \\
& 14t^6u^3 + 14t^3u^6 + 2u^9 + 3t^7u + 9t^4u^4 + 3tu^7 + 8t^5u^2 + 8t^2u^5 + t^6 + 4t^3u^3 + u^6 + 3t^4u + 3tu^4 + t^2u^2 + t^3 + u^3 + tu
\end{aligned}$$

$$\begin{aligned}
M_J(t, u)_5 = & t^{23}u^{22} + t^{21}u^{23} + 4t^{22}u^{21} + 2t^{19}u^{24} + 2t^{23}u^{19} + 3t^{20}u^{22} + 3t^{24}u^{17} + 9t^{21}u^{20} + 5t^{18}u^{23} + \\
& 6t^{22}u^{18} + 9t^{19}u^{21} + t^{16}u^{24} + 6t^{23}u^{16} + 18t^{20}u^{19} + 11t^{17}u^{22} + 2t^{24}u^{14} + 14t^{21}u^{17} + 18t^{18}u^{20} + 5t^{15}u^{23} + \\
& 11t^{22}u^{15} + 28t^{19}u^{18} + 17t^{16}u^{21} + t^{13}u^{24} + 6t^{23}u^{13} + 24t^{20}u^{16} + 31t^{17}u^{19} + 11t^{14}u^{22} + t^{24}u^{11} + 18t^{21}u^{14} + \\
& 38t^{18}u^{17} + 27t^{15}u^{20} + 5t^{12}u^{23} + 12t^{22}u^{12} + 36t^{19}u^{15} + 44t^{16}u^{18} + 18t^{13}u^{21} + 2t^{10}u^{24} + 5t^{23}u^{10} + 27t^{20}u^{13} + \\
& 48t^{17}u^{16} + 38t^{14}u^{19} + 10t^{11}u^{22} + t^{24}u^8 + 18t^{21}u^{11} + 46t^{18}u^{14} + 52t^{15}u^{17} + 27t^{12}u^{20} + 5t^9u^{23} + 11t^{22}u^9 + \\
& 39t^{19}u^{12} + 58t^{16}u^{15} + 49t^{13}u^{18} + 18t^{10}u^{21} + 3t^7u^{24} + 4t^{23}u^7 + 27t^{20}u^{10} + 52t^{17}u^{13} + 59t^{14}u^{16} + 37t^{11}u^{19} + \\
& 9t^8u^{22} + 2t^{24}u^5 + 17t^{21}u^8 + 49t^{18}u^{11} + 63t^{15}u^{14} + 56t^{12}u^{17} + 27t^9u^{20} + 5t^6u^{23} + 6t^{22}u^6 + 36t^{19}u^9 + \\
& 57t^{16}u^{12} + 63t^{13}u^{15} + 46t^{10}u^{18} + 14t^7u^{21} + 3t^{23}u^4 + 24t^{20}u^7 + 55t^{17}u^{10} + 64t^{14}u^{13} + 61t^{11}u^{16} + 35t^8u^{19} + \\
& 8t^5u^{22} + 9t^{21}u^5 + 44t^{18}u^8 + 63t^{15}u^{11} + 66t^{12}u^{14} + 52t^9u^{17} + 18t^6u^{20} + t^3u^{23} + 4t^{22}u^3 + 28t^{19}u^6 + 58t^{16}u^9 + \\
& 62t^{13}u^{12} + 63t^{10}u^{15} + 38t^7u^{18} + 9t^4u^{21} + 9t^{20}u^4 + 45t^{17}u^7 + 65t^{14}u^{10} + 67t^{11}u^{13} + 55t^8u^{16} + 20t^5u^{19} + \\
& t^2u^{22} + 4t^{21}u^2 + 28t^{18}u^5 + 58t^{15}u^8 + 62t^{12}u^{11} + 63t^9u^{14} + 38t^6u^{17} + 9t^3u^{20} + 9t^{19}u^3 + 44t^{16}u^6 + 63t^{13}u^9 + \\
& 66t^{10}u^{12} + 52t^7u^{15} + 18t^4u^{18} + tu^{21} + 3t^{20}u + 24t^{17}u^4 + 55t^{14}u^7 + 64t^{11}u^{10} + 61t^8u^{13} + 35t^5u^{16} + 8t^2u^{19} + \\
& 6t^{18}u^2 + 36t^{15}u^5 + 57t^{12}u^8 + 63t^9u^{11} + 46t^6u^{14} + 14t^3u^{17} + 2t^{19} + 17t^{16}u^3 + 49t^{13}u^6 + 63t^{10}u^9 + 56t^7u^{12} + \\
& 27t^4u^{15} + 5tu^{18} + 4t^{17}u + 27t^{14}u^4 + 52t^{11}u^7 + 59t^8u^{10} + 37t^5u^{13} + 9t^2u^{16} + 11t^{15}u^2 + 39t^{12}u^5 + 58t^9u^8 + \\
& 49t^6u^{11} + 18t^3u^{14} + 3u^{17} + t^{16} + 18t^{13}u^3 + 46t^{10}u^6 + 52t^7u^9 + 27t^4u^{12} + 5tu^{15} + 5t^{14}u + 27t^{11}u^4 + 48t^8u^7 + \\
& 38t^5u^{10} + 10t^2u^{13} + 12t^{12}u^2 + 36t^9u^5 + 44t^6u^8 + 18t^3u^{11} + 2u^{14} + t^{13} + 18t^{10}u^3 + 38t^7u^6 + 27t^4u^9 + 5tu^{12} + \\
& 6t^{11}u + 24t^8u^4 + 31t^5u^7 + 11t^2u^{10} + 11t^9u^2 + 28t^6u^5 + 17t^3u^8 + u^{11} + 2t^{10} + 14t^7u^3 + 18t^4u^6 + 5tu^9 + \\
& 6t^8u + 18t^5u^4 + 11t^2u^7 + 6t^6u^2 + 9t^3u^5 + u^8 + 3t^7 + 9t^4u^3 + 5tu^6 + 2t^5u + 3t^2u^4 + 4t^3u^2 + 2u^5 + tu^3 + t^2u
\end{aligned}$$

$$M_J(t, u)_6 = M_J(u, t)_5$$

$$\begin{aligned}
M_J(t, u)_7 = & t^{24}u^{23} + 2t^{23}u^{22} + t^{21}u^{23} + 4t^{22}u^{21} + 2t^{19}u^{24} + 3t^{23}u^{19} + 3t^{20}u^{22} + t^{24}u^{17} + 9t^{21}u^{20} + 4t^{18}u^{23} + \\
& 7t^{22}u^{18} + 9t^{19}u^{21} + t^{16}u^{24} + 4t^{23}u^{16} + 18t^{20}u^{19} + 9t^{17}u^{22} + 2t^{24}u^{14} + 14t^{21}u^{17} + 18t^{18}u^{20} + 5t^{15}u^{23} + \\
& 11t^{22}u^{15} + 29t^{19}u^{18} + 17t^{16}u^{21} + 2t^{13}u^{24} + 5t^{23}u^{13} + 24t^{20}u^{16} + 29t^{17}u^{19} + 11t^{14}u^{22} + 2t^{24}u^{11} + 18t^{21}u^{14} + \\
& 41t^{18}u^{17} + 27t^{15}u^{20} + 5t^{12}u^{23} + 10t^{22}u^{12} + 36t^{19}u^{15} + 42t^{16}u^{18} + 18t^{13}u^{21} + 2t^{10}u^{24} + 6t^{23}u^{10} + 27t^{20}u^{13} + \\
& 52t^{17}u^{16} + 38t^{14}u^{19} + 11t^{11}u^{22} + t^{24}u^8 + 18t^{21}u^{11} + 47t^{18}u^{14} + 52t^{15}u^{17} + 27t^{12}u^{20} + 5t^9u^{23} + 11t^{22}u^9 + \\
& 37t^{19}u^{12} + 58t^{16}u^{15} + 46t^{13}u^{18} + 18t^{10}u^{21} + t^7u^{24} + 3t^{23}u^7 + 27t^{20}u^{10} + 55t^{17}u^{13} + 59t^{14}u^{16} + 38t^{11}u^{19} + \\
& 9t^8u^{22} + 2t^{24}u^5 + 17t^{21}u^8 + 46t^{18}u^{11} + 63t^{15}u^{14} + 54t^{12}u^{17} + 27t^9u^{20} + 4t^6u^{23} + 7t^{22}u^6 + 36t^{19}u^9 + 61t^{16}u^{12} + \\
& 63t^{13}u^{15} + 47t^{10}u^{18} + 14t^7u^{21} + 3t^{23}u^4 + 24t^{20}u^7 + 53t^{17}u^{10} + 65t^{14}u^{13} + 59t^{11}u^{16} + 35t^8u^{19} + 8t^5u^{22} + \\
& 9t^{21}u^5 + 42t^{18}u^8 + 63t^{15}u^{11} + 64t^{12}u^{14} + 52t^9u^{17} + 18t^6u^{20} + t^3u^{23} + 4t^{22}u^3 + 29t^{19}u^6 + 58t^{16}u^9 + 66t^{13}u^{12} + \\
& 63t^{10}u^{15} + 41t^7u^{18} + 9t^4u^{21} + tu^{24} + t^{23}u + 9t^{20}u^4 + 45t^{17}u^7 + 65t^{14}u^{10} + 64t^{11}u^{13} + 55t^8u^{16} + 20t^5u^{19} + \\
& t^2u^{22} + 4t^{21}u^2 + 29t^{18}u^5 + 58t^{15}u^8 + 66t^{12}u^{11} + 63t^9u^{14} + 41t^6u^{17} + 9t^3u^{20} + u^{23} + 9t^{19}u^3 + 42t^{16}u^6 + \\
& 63t^{13}u^9 + 64t^{10}u^{12} + 52t^7u^{15} + 18t^4u^{18} + tu^{21} + 3t^{20}u + 24t^{17}u^4 + 53t^{14}u^7 + 65t^{11}u^{10} + 59t^8u^{13} + 35t^5u^{16} + \\
& 8t^2u^{19} + 7t^{18}u^2 + 36t^{15}u^5 + 61t^{12}u^8 + 63t^9u^{11} + 47t^6u^{14} + 14t^3u^{17} + 2t^{19} + 17t^{16}u^3 + 46t^{13}u^6 + 63t^{10}u^9 + \\
& 54t^7u^{12} + 27t^4u^{15} + 4tu^{18} + 3t^{17}u + 27t^{14}u^4 + 55t^{11}u^7 + 59t^8u^{10} + 38t^5u^{13} + 9t^2u^{16} + 11t^{15}u^2 + 37t^{12}u^5 + \\
& 58t^9u^8 + 46t^6u^{11} + 18t^3u^{14} + u^{17} + t^{16} + 18t^{13}u^3 + 47t^{10}u^6 + 52t^7u^9 + 27t^4u^{12} + 5tu^{15} + 6t^{14}u + 27t^{11}u^4 + \\
& 52t^8u^7 + 38t^5u^{10} + 11t^2u^{13} + 10t^{12}u^2 + 36t^9u^5 + 42t^6u^8 + 18t^3u^{11} + 2u^{14} + 2t^{13} + 18t^{10}u^3 + 41t^7u^6 + 27t^4u^9 + \\
& 5tu^{12} + 5t^{11}u + 24t^8u^4 + 29t^5u^7 + 11t^2u^{10} + 11t^9u^2 + 29t^6u^5 + 17t^3u^8 + 2u^{11} + 2t^{10} + 14t^7u^3 + 18t^4u^6 + 5tu^9 + \\
& 4t^8u + 18t^5u^4 + 9t^2u^7 + 7t^6u^2 + 9t^3u^5 + u^8 + t^7 + 9t^4u^3 + 4tu^6 + 3t^5u + 3t^2u^4 + 4t^3u^2 + 2u^5 + tu^3 + 2t^2u + t
\end{aligned}$$

$$M_J(t, u)_8 = M_J(u, t)_7$$

$$\begin{aligned}
M_J(t, u)_9 = & (t^{18}u^{15} + t^{15}u^{18} + 2t^{16}u^{16} + 3t^{17}u^{14} + 3t^{14}u^{17} + 3t^{15}u^{15} + 4t^{16}u^{13} + 4t^{13}u^{16} + t^{17}u^{11} + 3t^{14}u^{14} + \\
& t^{11}u^{17} + t^{18}u^9 + 6t^{15}u^{12} + 6t^{12}u^{15} + t^9u^{18} + 4t^{16}u^{10} + 5t^{13}u^{13} + 4t^{10}u^{16} + 2t^{17}u^8 + 7t^{14}u^{11} + 7t^{11}u^{14} + \\
& 2t^8u^{17} + 4t^{15}u^9 + 4t^{12}u^{12} + 4t^9u^{15} + 3t^{16}u^7 + 5t^{13}u^{10} + 5t^{10}u^{13} + 3t^7u^{16} + 2t^{17}u^5 + 5t^{14}u^8 + 4t^{11}u^{11} + \\
& 5t^8u^{14} + 2t^5u^{17} + t^{18}u^3 + 6t^{15}u^6 + 7t^{12}u^9 + 7t^9u^{12} + 6t^6u^{15} + t^3u^{18} + 4t^{16}u^4 + 6t^{13}u^7 + 5t^{10}u^{10} + 6t^7u^{13} + \\
& 4t^4u^{16} + t^{17}u^2 + 5t^{14}u^5 + 6t^{11}u^8 + 6t^8u^{11} + 5t^5u^{14} + t^2u^{17} + 3t^{15}u^3 + 4t^{12}u^6 + 3t^9u^9 + 4t^6u^{12} + 3t^3u^{15} + t^{16}u +
\end{aligned}$$

$$5t^{13}u^4 + 6t^{10}u^7 + 6t^7u^{10} + 5t^4u^{13} + tu^{16} + 4t^{14}u^2 + 6t^{11}u^5 + 5t^8u^8 + 6t^5u^{11} + 4t^2u^{14} + t^{15} + 6t^{12}u^3 + 7t^9u^6 + 7t^6u^9 + 6t^3u^{12} + u^{15} + 2t^{13}u + 5t^{10}u^4 + 4t^7u^7 + 5t^4u^{10} + 2tu^{13} + 3t^{11}u^2 + 5t^8u^5 + 5t^5u^8 + 3t^2u^{11} + 4t^9u^3 + 4t^6u^6 + 4t^3u^9 + 2t^{10}u + 7t^7u^4 + 7t^4u^7 + 2tu^{10} + 4t^8u^2 + 5t^5u^5 + 4t^2u^8 + t^9 + 6t^6u^3 + 6t^3u^6 + u^9 + t^7u + 3t^4u^4 + tu^7 + 4t^5u^2 + 4t^2u^5 + 3t^3u^3 + 3t^4u + 3tu^4 + 2t^2u^2 + t^3 + u^3)(u+1)^2(u^2-u+1)^2(t+1)^2(t^2-t+1)^2$$

$$M_J(t, u)_{10} = (t^{17}u^{16} + t^{18}u^{14} + 2t^{15}u^{17} + 4t^{16}u^{15} + t^{13}u^{18} + 2t^{17}u^{13} + 4t^{14}u^{16} + 4t^{15}u^{14} + t^{12}u^{17} + 3t^{16}u^{12} + 4t^{13}u^{15} + t^{10}u^{18} + 2t^{17}u^{10} + 5t^{14}u^{13} + 3t^{11}u^{16} + t^{18}u^8 + 6t^{15}u^{11} + 7t^{12}u^{14} + 3t^9u^{17} + 4t^{16}u^9 + 6t^{13}u^{12} + 4t^{10}u^{15} + t^{17}u^7 + 5t^{14}u^{10} + 6t^{11}u^{13} + 4t^8u^{16} + t^{18}u^5 + 4t^{15}u^8 + 4t^{12}u^{11} + 3t^9u^{14} + t^6u^{17} + 3t^{16}u^6 + 5t^{13}u^9 + 6t^{10}u^{12} + 6t^7u^{15} + t^4u^{18} + 3t^{17}u^4 + 7t^{14}u^7 + 6t^{11}u^{10} + 5t^8u^{13} + 4t^5u^{16} + 4t^{15}u^5 + 6t^{12}u^8 + 7t^9u^{11} + 7t^6u^{14} + 2t^3u^{17} + 4t^{16}u^3 + 6t^{13}u^6 + 5t^{10}u^9 + 4t^7u^{12} + 4t^4u^{15} + 3t^{14}u^4 + 4t^{11}u^7 + 5t^8u^{10} + 5t^5u^{13} + 2t^2u^{16} + 4t^{15}u^2 + 6t^{12}u^5 + 5t^9u^8 + 4t^6u^{11} + 4t^3u^{14} + 4t^{13}u^3 + 6t^{10}u^6 + 7t^7u^9 + 7t^4u^{12} + 2tu^{15} + 3t^{14}u + 7t^{11}u^4 + 6t^8u^7 + 5t^5u^{10} + 4t^2u^{13} + 3t^{12}u^2 + 5t^9u^5 + 6t^6u^8 + 6t^3u^{11} + u^{14} + t^{13} + 4t^{10}u^3 + 4t^7u^6 + 3t^4u^9 + tu^{12} + t^{11}u + 5t^8u^4 + 6t^5u^7 + 4t^2u^{10} + 4t^9u^2 + 6t^6u^5 + 4t^3u^8 + t^{10} + 6t^7u^3 + 7t^4u^6 + 3tu^9 + 2t^8u + 5t^5u^4 + 3t^2u^7 + 3t^6u^2 + 4t^3u^5 + u^8 + 4t^4u^3 + tu^6 + 2t^5u + 4t^2u^4 + 4t^3u^2 + u^5 + t^4 + 2tu^3 + t^2u)(u+1)^2(u^2-u+1)^2(t+1)^2(t^2-t+1)^2$$

$$M_J(t, u)_{11} = M_J(u, t)_{10}$$

$$M_J(t, u)_{12} = (t^{11}u^{11} + 4t^{10}u^{10} + 2t^{11}u^8 + 2t^8u^{11} + 3t^{12}u^6 + 9t^9u^9 + 3t^6u^{12} + 5t^{10}u^7 + 5t^7u^{10} + 5t^{11}u^5 + 16t^8u^8 + 5t^5u^{11} + 9t^9u^6 + 9t^6u^9 + 8t^{10}u^4 + 25t^7u^7 + 8t^4u^{10} + t^{11}u^2 + 10t^8u^5 + 10t^5u^8 + t^2u^{11} + 9t^9u^3 + 24t^6u^6 + 9t^3u^9 + t^{10}u + 10t^7u^4 + 10t^4u^7 + tu^{10} + 8t^8u^2 + 25t^5u^5 + 8t^2u^8 + 9t^6u^3 + 9t^3u^6 + 5t^7u + 16t^4u^4 + 5tu^7 + 5t^5u^2 + 5t^2u^5 + 3t^6 + 9t^3u^3 + 3u^6 + 2t^4u + 2tu^4 + 4t^2u^2 + tu)(u^4 + u^3 + u^2 + u + 1)(u^8 - u^7 + u^5 - u^4 + u^3 - u + 1)(t^4 + t^3 + t^2 + t + 1)(t^8 - t^7 + t^5 - t^4 + t^3 - t + 1)$$

$$M_J(t, u)_{13} = (t^{10}u^{12} + t^{11}u^{10} + 2t^{12}u^8 + 3t^9u^{11} + 3t^{10}u^9 + 5t^{11}u^7 + 8t^8u^{10} + 6t^9u^8 + 3t^6u^{11} + 10t^{10}u^6 + 15t^7u^9 + 2t^4u^{12} + 2t^{11}u^4 + 10t^8u^7 + 5t^5u^{10} + t^{12}u^2 + 15t^9u^5 + 20t^6u^8 + 3t^3u^{11} + 3t^{10}u^3 + 15t^7u^6 + 6t^4u^9 + t^{11}u + 16t^8u^4 + 25t^5u^7 + 4t^2u^{10} + 3t^9u^2 + 15t^6u^5 + 6t^3u^8 + t^{10} + 15t^7u^3 + 20t^4u^6 + 3tu^9 + 2t^8u + 10t^5u^4 + 5t^2u^7 + 10t^6u^2 + 15t^3u^5 + 2u^8 + 6t^4u^3 + 3tu^6 + 5t^5u + 8t^2u^4 + 3t^3u^2 + 2t^4 + 3tu^3 + t^2u + u^2)(u^4 + u^3 + u^2 + u + 1)(u^8 - u^7 + u^5 - u^4 + u^3 - u + 1)(t^4 + t^3 + t^2 + t + 1)(t^8 - t^7 + t^5 - t^4 + t^3 - t + 1)$$

$$M_J(t, u)_{14} = M_J(u, t)_{13}$$

The Poincaré series of the invariant ring is

$$P_J(t, 0)_0 = P_J(0, t)_0 = -\frac{t^{24} + t^{12} + 1}{(t^4 + t^3 + t^2 + t + 1)(t^8 - t^7 + t^5 - t^4 + t^3 - t + 1)(t + 1)^2(t^2 - t + 1)^2(t - 1)^3(t^2 + t + 1)^3}$$

7 Type K

$$D_K(t) = (t - 1)^3(t^2 + t + 1)^3(t^2 + 1)(t^4 - t^2 + 1)(t^6 + t^5 + t^4 + t^3 + t^2 + t + 1)(t^{12} - t^{11} + t^9 - t^8 + t^6 - t^4 + t^3 - t + 1)(t + 1)^2(t^2 - t + 1)^2$$

$$M_K(t, u)_0 = t^{36}u^{36} + t^{35}u^{35} + t^{34}u^{34} + 2t^{33}u^{33} + 3t^{32}u^{32} + t^{33}u^{30} + t^{30}u^{33} + 2t^{34}u^{28} + 4t^{31}u^{31} + 2t^{28}u^{34} + 2t^{32}u^{29} + 2t^{29}u^{32} + 3t^{33}u^{27} + 6t^{30}u^{30} + 3t^{27}u^{33} + t^{34}u^{25} + 4t^{31}u^{28} + 4t^{28}u^{31} + t^{25}u^{34} + t^{35}u^{23} + 5t^{32}u^{26} + 9t^{29}u^{29} + 5t^{26}u^{32} + t^{23}u^{35} + 3t^{33}u^{24} + 6t^{30}u^{27} + 6t^{27}u^{30} + 3t^{24}u^{33} + 2t^{34}u^{22} + 8t^{31}u^{25} + 11t^{28}u^{28} + 8t^{25}u^{31} + 2t^{22}u^{34} + 2t^{35}u^{20} + 5t^{32}u^{23} + 9t^{29}u^{26} + 9t^{26}u^{29} + 5t^{23}u^{32} + 2t^{20}u^{35} + t^{36}u^{18} + 3t^{33}u^{21} + 11t^{30}u^{24} + 14t^{27}u^{27} + 11t^{24}u^{30} + 3t^{21}u^{33} + t^{18}u^{36} + 3t^{34}u^{19} + 8t^{31}u^{22} + 12t^{28}u^{25} + 12t^{25}u^{28} + 8t^{22}u^{31} + 3t^{19}u^{34} + 2t^{35}u^{17} + 6t^{32}u^{20} + 14t^{29}u^{23} + 18t^{26}u^{26} + 14t^{23}u^{29} + 6t^{20}u^{32} + 2t^{17}u^{35} + 4t^{33}u^{18} + 11t^{30}u^{21} + 16t^{27}u^{24} + 16t^{24}u^{27} + 11t^{21}u^{30} + 4t^{18}u^{33} + 3t^{34}u^{16} + 9t^{31}u^{19} + 16t^{28}u^{22} + 21t^{25}u^{25} + 16t^{22}u^{28} + 9t^{19}u^{31} + 3t^{16}u^{34} + t^{35}u^{14} + 6t^{32}u^{17} + 13t^{29}u^{20} + 20t^{26}u^{23} + 20t^{23}u^{26} + 13t^{20}u^{29} + 6t^{17}u^{32} + t^{14}u^{35} + 5t^{33}u^{15} + 11t^{30}u^{18} + 20t^{27}u^{21} + 24t^{24}u^{24} + 20t^{21}u^{27} + 11t^{18}u^{30} + 5t^{15}u^{33} + 2t^{34}u^{13} + 9t^{31}u^{16} + 16t^{28}u^{19} + 24t^{25}u^{22} + 24t^{22}u^{25} + 16t^{19}u^{28} + 9t^{16}u^{31} + 2t^{13}u^{34} + t^{35}u^{11} + 7t^{32}u^{14} + 13t^{29}u^{17} + 22t^{26}u^{20} + 27t^{23}u^{23} + 22t^{20}u^{26} + 13t^{17}u^{29} + 7t^{14}u^{32} + t^{11}u^{35} + 3t^{33}u^{12} + 11t^{30}u^{15} + 19t^{27}u^{18} + 26t^{24}u^{21} + 26t^{21}u^{24} + 19t^{18}u^{27} + 11t^{15}u^{30} + 3t^{12}u^{33} + 3t^{34}u^{10} +$$

$$\begin{aligned}
& 9t^{31}u^{13} + 16t^{28}u^{16} + 24t^{25}u^{19} + 31t^{22}u^{22} + 24t^{19}u^{25} + 16t^{16}u^{28} + 9t^{13}u^{31} + 3t^{10}u^{34} + 4t^{32}u^{11} + 14t^{29}u^{14} + \\
& 22t^{26}u^{17} + 28t^{23}u^{20} + 28t^{20}u^{23} + 22t^{17}u^{26} + 14t^{14}u^{29} + 4t^{11}u^{32} + 4t^{33}u^9 + 11t^{30}u^{12} + 18t^{27}u^{15} + 26t^{24}u^{18} + \\
& 33t^{21}u^{21} + 26t^{18}u^{24} + 18t^{15}u^{27} + 11t^{12}u^{30} + 4t^9u^{33} + 5t^{31}u^{10} + 15t^{28}u^{13} + 24t^{25}u^{16} + 29t^{22}u^{19} + 29t^{19}u^{22} + \\
& 24t^{16}u^{25} + 15t^{13}u^{28} + 5t^{10}u^{31} + t^{35}u^5 + 5t^{32}u^8 + 13t^{29}u^{11} + 20t^{26}u^{14} + 28t^{23}u^{17} + 32t^{20}u^{20} + 28t^{17}u^{23} + \\
& 20t^{14}u^{26} + 13t^{11}u^{29} + 5t^8u^{32} + t^5u^{35} + t^{33}u^6 + 6t^{30}u^9 + 16t^{27}u^{12} + 26t^{24}u^{15} + 31t^{21}u^{18} + 31t^{18}u^{21} + 26t^{15}u^{24} + \\
& 16t^{12}u^{27} + 6t^9u^{30} + t^6u^{33} + t^{34}u^4 + 5t^{31}u^7 + 13t^{28}u^{10} + 23t^{25}u^{13} + 29t^{22}u^{16} + 32t^{19}u^{19} + 29t^{16}u^{22} + 23t^{13}u^{25} + \\
& 13t^{10}u^{28} + 5t^7u^{31} + t^4u^{34} + t^{32}u^5 + 7t^{29}u^8 + 16t^{26}u^{11} + 26t^{23}u^{14} + 32t^{20}u^{17} + 32t^{17}u^{20} + 26t^{14}u^{23} + 16t^{11}u^{26} + \\
& 7t^8u^{29} + t^5u^{32} + t^36 + t^{33}u^3 + 6t^{30}u^6 + 13t^{27}u^9 + 24t^{24}u^{12} + 29t^{21}u^{15} + 32t^{18}u^{18} + 29t^{15}u^{21} + 24t^{12}u^{24} + \\
& 13t^9u^{27} + 6t^6u^{30} + t^3u^{33} + u^{36} + t^{31}u^4 + 7t^{28}u^7 + 16t^{25}u^{10} + 26t^{22}u^{13} + 32t^{19}u^{16} + 32t^{16}u^{19} + 26t^{13}u^{22} + \\
& 16t^{10}u^{25} + 7t^7u^{28} + t^4u^{31} + t^{32}u^2 + 5t^{29}u^5 + 13t^{26}u^8 + 23t^{23}u^{11} + 29t^{20}u^{14} + 32t^{17}u^{17} + 29t^{14}u^{20} + 23t^{11}u^{23} + \\
& 13t^8u^{26} + 5t^5u^{29} + t^2u^{32} + t^{30}u^3 + 6t^{27}u^6 + 16t^{24}u^9 + 26t^{21}u^{12} + 31t^{18}u^{15} + 31t^{15}u^{18} + 26t^{12}u^{21} + 16t^9u^{24} + \\
& 6t^6u^{27} + t^3u^{30} + t^{31}u + 5t^{28}u^4 + 13t^{25}u^7 + 20t^{22}u^{10} + 28t^{19}u^{13} + 32t^{16}u^{16} + 28t^{13}u^{19} + 20t^{10}u^{22} + 13t^7u^{25} + \\
& 5t^4u^{28} + tu^{31} + 5t^{26}u^5 + 15t^{23}u^8 + 24t^{20}u^{11} + 29t^{17}u^{14} + 29t^{14}u^{17} + 24t^{11}u^{20} + 15t^8u^{23} + 5t^5u^{26} + 4t^{27}u^3 + \\
& 11t^{24}u^6 + 18t^{21}u^9 + 26t^{18}u^{12} + 33t^{15}u^{15} + 26t^{12}u^{18} + 18t^9u^{21} + 11t^6u^{24} + 4t^3u^{27} + 4t^{25}u^4 + 14t^{22}u^7 + \\
& 22t^{19}u^{10} + 28t^{16}u^{13} + 28t^{13}u^{16} + 22t^{10}u^{19} + 14t^7u^{22} + 4t^4u^{25} + 3t^{26}u^2 + 9t^{23}u^5 + 16t^{20}u^8 + 24t^{17}u^{11} + \\
& 31t^{14}u^{14} + 24t^{11}u^{17} + 16t^8u^{20} + 9t^5u^{23} + 3t^2u^{26} + 3t^{24}u^3 + 11t^{21}u^6 + 19t^{18}u^9 + 26t^{15}u^{12} + 26t^{12}u^{15} + \\
& 19t^9u^{18} + 11t^6u^{21} + 3t^3u^{24} + t^{25}u + 7t^{22}u^4 + 13t^{19}u^7 + 22t^{16}u^{10} + 27t^{13}u^{13} + 22t^{10}u^{16} + 13t^7u^{19} + 7t^4u^{22} + \\
& tu^{25} + 2t^{23}u^2 + 9t^{20}u^5 + 16t^{17}u^8 + 24t^{14}u^{11} + 24t^{11}u^{14} + 16t^8u^{17} + 9t^5u^{20} + 2t^2u^{23} + 5t^{21}u^3 + 11t^{18}u^6 + \\
& 20t^{15}u^9 + 24t^{12}u^{12} + 20t^9u^{15} + 11t^6u^{18} + 5t^3u^{21} + t^{22}u + 6t^{19}u^4 + 13t^{16}u^7 + 20t^{13}u^{10} + 20t^{10}u^{13} + 13t^7u^{16} + \\
& 6t^4u^{19} + tu^{22} + 3t^{20}u^2 + 9t^{17}u^5 + 16t^{14}u^8 + 21t^{11}u^{11} + 16t^8u^{14} + 9t^5u^{17} + 3t^2u^{20} + 4t^{18}u^3 + 11t^{15}u^6 + \\
& 16t^{12}u^9 + 16t^9u^{12} + 11t^6u^{15} + 4t^3u^{18} + 2t^{19}u + 6t^{16}u^4 + 14t^{13}u^7 + 18t^{10}u^{10} + 14t^7u^{13} + 6t^4u^{16} + 2tu^{19} + \\
& 3t^{17}u^2 + 8t^{14}u^5 + 12t^{11}u^8 + 12t^8u^{11} + 8t^5u^{14} + 3t^2u^{17} + t^{18} + 3t^{15}u^3 + 11t^{12}u^6 + 14t^9u^9 + 11t^6u^{12} + 3t^3u^{15} + \\
& u^{18} + 2t^{16}u + 5t^{13}u^4 + 9t^{10}u^7 + 9t^7u^{10} + 5t^4u^{13} + 2tu^{16} + 2t^{14}u^2 + 8t^{11}u^5 + 11t^8u^8 + 8t^5u^{11} + 2t^2u^{14} + \\
& 3t^{12}u^3 + 6t^9u^6 + 6t^6u^9 + 3t^3u^{12} + t^{13}u + 5t^{10}u^4 + 9t^7u^7 + 5t^4u^{10} + tu^{13} + t^{11}u^2 + 4t^8u^5 + 4t^5u^8 + t^2u^{11} + \\
& 3t^9u^3 + 6t^6u^6 + 3t^3u^9 + 2t^7u^4 + 2t^4u^7 + 2t^8u^2 + 4t^5u^5 + 2t^2u^8 + t^6u^3 + t^3u^6 + 3t^4u^4 + 2t^3u^3 + t^2u^2 + tu + 1
\end{aligned}$$

$$\begin{aligned}
M_K(t, u)_1 = & t^{32}u^{36} + t^{34}u^{32} + t^{31}u^{35} + t^{36}u^{28} + 2t^{33}u^{31} + 2t^{30}u^{34} + t^{31}u^{32} + t^{28}u^{35} + 2t^{35}u^{27} + 3t^{32}u^{30} + \\
& 3t^{29}u^{33} + t^{33}u^{28} + 2t^{30}u^{31} + t^{27}u^{34} + 3t^{34}u^{26} + 5t^{31}u^{29} + 5t^{28}u^{32} + t^{25}u^{35} + t^{35}u^{24} + 3t^{32}u^{27} + 4t^{29}u^{30} + \\
& 3t^{26}u^{33} + t^{36}u^{22} + 4t^{33}u^{25} + 7t^{30}u^{28} + 7t^{27}u^{31} + 3t^{24}u^{34} + 2t^{34}u^{23} + 5t^{31}u^{26} + 6t^{28}u^{29} + 4t^{25}u^{32} + 2t^{35}u^{21} + \\
& 6t^{32}u^{24} + 9t^{29}u^{27} + 10t^{26}u^{30} + 5t^{23}u^{33} + 4t^{33}u^{22} + 8t^{30}u^{25} + 10t^{27}u^{28} + 7t^{24}u^{31} + 2t^{21}u^{34} + 3t^{34}u^{20} + \\
& 9t^{31}u^{23} + 12t^{28}u^{26} + 13t^{25}u^{29} + 7t^{22}u^{32} + t^{19}u^{35} + t^{35}u^{18} + 6t^{32}u^{21} + 11t^{29}u^{24} + 12t^{26}u^{27} + 10t^{23}u^{30} + \\
& 4t^{20}u^{33} + 5t^{33}u^{19} + 11t^{30}u^{22} + 16t^{27}u^{25} + 15t^{24}u^{28} + 9t^{21}u^{31} + 2t^{18}u^{34} + 3t^{34}u^{17} + 9t^{31}u^{20} + 14t^{28}u^{23} + \\
& 16t^{25}u^{26} + 15t^{22}u^{29} + 6t^{19}u^{32} + t^{16}u^{35} + 7t^{32}u^{18} + 14t^{29}u^{21} + 20t^{26}u^{24} + 18t^{23}u^{27} + 12t^{20}u^{30} + 4t^{17}u^{33} + \\
& t^{14}u^{36} + 5t^{33}u^{16} + 12t^{30}u^{19} + 17t^{27}u^{22} + 20t^{24}u^{25} + 17t^{21}u^{28} + 9t^{18}u^{31} + 2t^{15}u^{34} + 2t^{34}u^{14} + 9t^{31}u^{17} + \\
& 17t^{28}u^{20} + 23t^{25}u^{23} + 21t^{22}u^{26} + 14t^{19}u^{29} + 6t^{16}u^{32} + 2t^{13}u^{35} + t^{35}u^{12} + 6t^{32}u^{15} + 15t^{29}u^{18} + 20t^{26}u^{21} + \\
& 24t^{23}u^{24} + 20t^{20}u^{27} + 12t^{17}u^{30} + 3t^{14}u^{33} + 4t^{33}u^{13} + 12t^{30}u^{16} + 19t^{27}u^{19} + 25t^{24}u^{22} + 25t^{21}u^{25} + 17t^{18}u^{28} + \\
& 9t^{15}u^{31} + 3t^{12}u^{34} + t^{34}u^{11} + 8t^{31}u^{14} + 17t^{28}u^{17} + 24t^{25}u^{20} + 27t^{22}u^{23} + 23t^{19}u^{26} + 14t^{16}u^{29} + 5t^{13}u^{32} + \\
& t^{10}u^{35} + t^{35}u^9 + 6t^{32}u^{12} + 16t^{29}u^{15} + 21t^{26}u^{18} + 27t^{23}u^{21} + 27t^{20}u^{24} + 20t^{17}u^{27} + 11t^{14}u^{30} + 4t^{11}u^{33} + \\
& t^8u^{36} + 2t^{33}u^{10} + 10t^{30}u^{13} + 19t^{27}u^{16} + 27t^{24}u^{19} + 29t^{21}u^{22} + 25t^{18}u^{25} + 15t^{15}u^{28} + 7t^{12}u^{31} + t^9u^{34} + \\
& 2t^{34}u^8 + 8t^{31}u^{11} + 17t^{28}u^{14} + 24t^{25}u^{17} + 28t^{22}u^{20} + 29t^{19}u^{23} + 23t^{16}u^{26} + 13t^{13}u^{29} + 5t^{10}u^{32} + t^7u^{35} + \\
& 3t^{32}u^9 + 11t^{29}u^{12} + 22t^{26}u^{15} + 28t^{23}u^{18} + 31t^{20}u^{21} + 27t^{17}u^{24} + 18t^{14}u^{27} + 8t^{11}u^{30} + 2t^8u^{33} + t^{36}u^4 + \\
& 2t^{33}u^7 + 10t^{30}u^{10} + 19t^{27}u^{13} + 27t^{24}u^{16} + 29t^{21}u^{19} + 31t^{18}u^{22} + 25t^{15}u^{25} + 15t^{12}u^{28} + 7t^9u^{31} + 2t^6u^{34} + \\
& 4t^{31}u^8 + 12t^{28}u^{11} + 24t^{25}u^{14} + 28t^{22}u^{17} + 31t^{19}u^{20} + 29t^{16}u^{23} + 19t^{13}u^{26} + 8t^{10}u^{29} + 2t^7u^{32} + t^{35}u^3 + \\
& 3t^{32}u^6 + 10t^{29}u^9 + 20t^{26}u^{12} + 29t^{23}u^{15} + 30t^{20}u^{18} + 31t^{17}u^{21} + 25t^{14}u^{24} + 16t^{11}u^{27} + 7t^8u^{30} + 2t^5u^{33} + \\
& 4t^{30}u^7 + 13t^{27}u^{10} + 24t^{24}u^{13} + 29t^{21}u^{16} + 30t^{18}u^{19} + 31t^{15}u^{22} + 20t^{12}u^{25} + 9t^9u^{28} + 2t^6u^{31} + t^{34}u^2 + \\
& 4t^{31}u^5 + 10t^{28}u^8 + 21t^{25}u^{11} + 30t^{22}u^{14} + 31t^{19}u^{17} + 31t^{16}u^{20} + 26t^{13}u^{23} + 17t^{10}u^{26} + 8t^7u^{29} + 3t^4u^{32} + \\
& 4t^{29}u^6 + 13t^{26}u^9 + 24t^{23}u^{12} + 29t^{20}u^{15} + 30t^{17}u^{18} + 31t^{14}u^{21} + 20t^{11}u^{24} + 9t^8u^{27} + 2t^5u^{30} + t^{33}u + 3t^{30}u^4 + \\
& 10t^{27}u^7 + 20t^{24}u^{10} + 29t^{21}u^{13} + 30t^{18}u^{16} + 31t^{15}u^{19} + 25t^{12}u^{22} + 16t^9u^{25} + 7t^6u^{28} + 2t^3u^{31} + 4t^{28}u^5 + \\
& 12t^{25}u^8 + 24t^{22}u^{11} + 28t^{19}u^{14} + 31t^{16}u^{17} + 29t^{13}u^{20} + 19t^{10}u^{23} + 8t^7u^{26} + 2t^4u^{29} + t^{32} + 2t^{29}u^3 + 10t^{26}u^6 + \\
& 19t^{23}u^9 + 27t^{20}u^{12} + 29t^{17}u^{15} + 31t^{14}u^{18} + 25t^{11}u^{21} + 15t^8u^{24} + 7t^5u^{27} + 2t^2u^{30} + 3t^{27}u^4 + 11t^{24}u^7 + \\
& 22t^{21}u^{10} + 28t^{18}u^{13} + 31t^{15}u^{16} + 27t^{12}u^{19} + 18t^9u^{22} + 8t^6u^{25} + 2t^3u^{28} + 2t^{28}u^2 + 8t^{25}u^5 + 17t^{22}u^8 + \\
& 24t^{19}u^{11} + 28t^{16}u^{14} + 29t^{13}u^{17} + 23t^{10}u^{20} + 13t^7u^{23} + 5t^4u^{26} + tu^{29} + 2t^{26}u^3 + 10t^{23}u^6 + 19t^{20}u^9 + \\
& 27t^{17}u^{12} + 29t^{14}u^{15} + 25t^{11}u^{18} + 15t^8u^{21} + 7t^5u^{24} + t^2u^{27} + t^{27}u + 6t^{24}u^4 + 16t^{21}u^7 + 21t^{18}u^{10} + 27t^{15}u^{13} + \\
& 27t^{12}u^{16} + 20t^9u^{19} + 11t^6u^{22} + 4t^3u^{25} + u^{28} + t^{25}u^2 + 8t^{22}u^5 + 17t^{19}u^8 + 24t^{16}u^{11} + 27t^{13}u^{14} + 23t^{10}u^{17} + \\
& 14t^7u^{20} + 5t^4u^{23} + tu^{26} + 4t^{23}u^3 + 12t^{20}u^6 + 19t^{17}u^9 + 25t^{14}u^{12} + 25t^{11}u^{15} + 17t^8u^{18} + 9t^5u^{21} + 3t^2u^{24} +
\end{aligned}$$

$$\begin{aligned}
& t^{24}u + 6t^{21}u^4 + 15t^{18}u^7 + 20t^{15}u^{10} + 24t^{12}u^{13} + 20t^9u^{16} + 12t^6u^{19} + 3t^3u^{22} + 2t^{22}u^2 + 9t^{19}u^5 + 17t^{16}u^8 + \\
& 23t^{13}u^{11} + 21t^{10}u^{14} + 14t^7u^{17} + 6t^4u^{20} + 2tu^{23} + 5t^{20}u^3 + 12t^{17}u^6 + 17t^{14}u^9 + 20t^{11}u^{12} + 17t^8u^{15} + \\
& 9t^5u^{18} + 2t^2u^{21} + 7t^{18}u^4 + 14t^{15}u^7 + 20t^{12}u^{10} + 18t^9u^{13} + 12t^6u^{16} + 4t^3u^{19} + u^{22} + 3t^{19}u^2 + 9t^{16}u^5 + \\
& 14t^{13}u^8 + 16t^{10}u^{11} + 15t^7u^{14} + 6t^4u^{17} + tu^{20} + 5t^{17}u^3 + 11t^{14}u^6 + 16t^{11}u^9 + 15t^8u^{12} + 9t^5u^{15} + 2t^2u^{18} + \\
& t^{18}u + 6t^{15}u^4 + 11t^{12}u^7 + 12t^9u^{10} + 10t^6u^{13} + 4t^3u^{16} + 3t^{16}u^2 + 9t^{13}u^5 + 12t^{10}u^8 + 13t^7u^{11} + 7t^4u^{14} + tu^{17} + \\
& 4t^{14}u^3 + 8t^{11}u^6 + 10t^8u^9 + 7t^5u^{12} + 2t^2u^{15} + 2t^{15}u + 6t^{12}u^4 + 9t^9u^7 + 10t^6u^{10} + 5t^3u^{13} + 2t^{13}u^2 + 5t^{10}u^5 + \\
& 6t^7u^8 + 4t^4u^{11} + t^{14} + 4t^{11}u^3 + 7t^8u^6 + 7t^5u^9 + 3t^2u^{12} + t^{12}u + 3t^9u^4 + 4t^6u^7 + 3t^3u^{10} + 3t^{10}u^2 + 5t^7u^5 + \\
& 5t^4u^8 + tu^{11} + t^8u^3 + 2t^5u^6 + t^2u^9 + 2t^9u + 3t^6u^4 + 3t^3u^7 + t^4u^5 + tu^8 + t^8 + 2t^5u^3 + 2t^2u^6 + t^4u^2 + tu^5 + u^4
\end{aligned}$$

$$M_K(t, u)_2 = M_K(u, t)_1$$

$$\begin{aligned}
& M_K(t, u)_3 = t^{33}u^{36} + t^{35}u^{32} + 2t^{32}u^{35} + t^{33}u^{33} + 3t^{34}u^{31} + 3t^{31}u^{34} + t^{35}u^{29} + 3t^{32}u^{32} + 2t^{29}u^{35} + 2t^{36}u^{27} + \\
& 5t^{33}u^{30} + 6t^{30}u^{33} + t^{27}u^{36} + 3t^{34}u^{28} + 7t^{31}u^{31} + 4t^{28}u^{34} + 4t^{35}u^{26} + 9t^{32}u^{29} + 10t^{29}u^{32} + 2t^{26}u^{35} + t^{36}u^{24} + \\
& 7t^{33}u^{27} + 12t^{30}u^{30} + 8t^{27}u^{33} + t^{24}u^{36} + 7t^{34}u^{25} + 16t^{31}u^{28} + 16t^{28}u^{31} + 7t^{25}u^{34} + 4t^{35}u^{23} + 12t^{32}u^{26} + \\
& 18t^{29}u^{29} + 13t^{26}u^{32} + 3t^{23}u^{35} + 2t^{36}u^{21} + 11t^{33}u^{24} + 22t^{30}u^{27} + 23t^{27}u^{30} + 12t^{24}u^{33} + 8t^{34}u^{22} + 20t^{31}u^{25} + \\
& 26t^{28}u^{28} + 20t^{25}u^{31} + 7t^{22}u^{34} + 4t^{35}u^{20} + 18t^{32}u^{23} + 30t^{29}u^{26} + 33t^{26}u^{29} + 19t^{23}u^{32} + 3t^{20}u^{35} + t^{36}u^{18} + \\
& 13t^{33}u^{21} + 29t^{30}u^{24} + 35t^{27}u^{27} + 29t^{24}u^{30} + 13t^{21}u^{33} + t^{18}u^{36} + 8t^{34}u^{19} + 26t^{31}u^{22} + 40t^{28}u^{25} + 41t^{25}u^{28} + \\
& 26t^{22}u^{31} + 7t^{19}u^{34} + 4t^{35}u^{17} + 20t^{32}u^{20} + 37t^{29}u^{23} + 45t^{26}u^{26} + 39t^{23}u^{29} + 19t^{20}u^{32} + 3t^{17}u^{35} + 14t^{33}u^{18} + \\
& 34t^{30}u^{21} + 51t^{27}u^{24} + 50t^{24}u^{27} + 36t^{21}u^{30} + 12t^{18}u^{33} + 2t^{15}u^{36} + 8t^{34}u^{16} + 27t^{31}u^{19} + 46t^{28}u^{22} + 57t^{25}u^{25} + \\
& 49t^{22}u^{28} + 27t^{19}u^{31} + 7t^{16}u^{34} + 2t^{35}u^{14} + 20t^{32}u^{17} + 43t^{29}u^{20} + 61t^{26}u^{23} + 60t^{23}u^{26} + 43t^{20}u^{29} + 19t^{17}u^{32} + \\
& 5t^{14}u^{35} + t^{36}u^{12} + 13t^{33}u^{15} + 35t^{30}u^{18} + 55t^{27}u^{21} + 68t^{24}u^{24} + 57t^{21}u^{27} + 35t^{18}u^{30} + 11t^{15}u^{33} + t^{12}u^{36} + \\
& 7t^{34}u^{13} + 27t^{31}u^{16} + 51t^{28}u^{19} + 70t^{25}u^{22} + 71t^{22}u^{25} + 50t^{19}u^{28} + 27t^{16}u^{31} + 8t^{13}u^{34} + 2t^{35}u^{11} + 18t^{32}u^{14} + \\
& 43t^{29}u^{17} + 64t^{26}u^{20} + 77t^{23}u^{23} + 67t^{20}u^{26} + 43t^{17}u^{29} + 17t^{14}u^{32} + 3t^{11}u^{35} + t^{36}u^9 + 11t^{33}u^{12} + 36t^{30}u^{15} + \\
& 57t^{27}u^{18} + 78t^{24}u^{21} + 80t^{21}u^{24} + 59t^{18}u^{27} + 34t^{15}u^{30} + 12t^{12}u^{33} + 2t^9u^{36} + 4t^{34}u^{10} + 24t^{31}u^{13} + 51t^{28}u^{16} + \\
& 73t^{25}u^{19} + 84t^{22}u^{22} + 74t^{19}u^{25} + 50t^{16}u^{28} + 24t^{13}u^{31} + 5t^{10}u^{34} + 3t^{35}u^8 + 16t^{32}u^{11} + 43t^{29}u^{14} + 64t^{26}u^{17} + \\
& 84t^{23}u^{20} + 86t^{20}u^{23} + 67t^{17}u^{26} + 39t^{14}u^{29} + 16t^{11}u^{32} + 3t^8u^{35} + 7t^{33}u^9 + 29t^{30}u^{12} + 57t^{27}u^{15} + 80t^{24}u^{18} + \\
& 89t^{21}u^{21} + 80t^{18}u^{24} + 57t^{15}u^{27} + 29t^{12}u^{30} + 7t^9u^{33} + 4t^{34}u^7 + 20t^{31}u^{10} + 47t^{28}u^{13} + 73t^{25}u^{16} + 87t^{22}u^{19} + \\
& 91t^{19}u^{22} + 74t^{16}u^{25} + 46t^{13}u^{28} + 20t^{10}u^{31} + 5t^7u^{34} + t^{35}u^5 + 9t^{32}u^8 + 33t^{29}u^{11} + 64t^{26}u^{14} + 84t^{23}u^{17} + \\
& 92t^{20}u^{20} + 86t^{17}u^{23} + 63t^{14}u^{26} + 32t^{11}u^{29} + 10t^8u^{32} + t^5u^{35} + t^{36}u^3 + 5t^{33}u^6 + 23t^{30}u^9 + 51t^{27}u^{12} + \\
& 80t^{24}u^{15} + 89t^{21}u^{18} + 93t^{18}u^{21} + 78t^{15}u^{24} + 50t^{12}u^{27} + 22t^9u^{30} + 6t^6u^{33} + t^{34}u^4 + 11t^{31}u^7 + 35t^{28}u^{10} + \\
& 67t^{25}u^{13} + 87t^{22}u^{16} + 92t^{19}u^{19} + 91t^{16}u^{22} + 66t^{13}u^{25} + 33t^{10}u^{28} + 11t^7u^{31} + t^4u^{34} + t^{35}u^2 + 7t^{32}u^5 + \\
& 23t^{29}u^8 + 54t^{26}u^{11} + 83t^{23}u^{14} + 92t^{20}u^{17} + 92t^{17}u^{20} + 81t^{14}u^{23} + 53t^{11}u^{26} + 24t^8u^{29} + 7t^5u^{32} + t^{33}u^3 + \\
& 12t^{30}u^6 + 36t^{27}u^9 + 68t^{24}u^{12} + 89t^{21}u^{15} + 92t^{18}u^{18} + 93t^{15}u^{21} + 68t^{12}u^{24} + 35t^9u^{27} + 12t^6u^{30} + 2t^3u^{33} + \\
& t^{34}u + 7t^{31}u^4 + 23t^{28}u^7 + 54t^{25}u^{10} + 83t^{22}u^{13} + 92t^{19}u^{16} + 92t^{16}u^{19} + 81t^{13}u^{22} + 53t^{10}u^{25} + 24t^7u^{28} + \\
& 7t^4u^{31} + t^{32}u^2 + 11t^{29}u^5 + 35t^{26}u^8 + 67t^{23}u^{11} + 87t^{20}u^{14} + 92t^{17}u^{17} + 91t^{14}u^{20} + 66t^{11}u^{23} + 33t^8u^{26} + \\
& 11t^5u^{29} + t^2u^{32} + t^{33} + 5t^{30}u^3 + 23t^{27}u^6 + 51t^{24}u^9 + 80t^{21}u^{12} + 89t^{18}u^{15} + 93t^{15}u^{18} + 78t^{12}u^{21} + 50t^9u^{24} + \\
& 22t^6u^{27} + 6t^3u^{30} + t^{31}u + 9t^{28}u^4 + 33t^{25}u^7 + 64t^{22}u^{10} + 84t^{19}u^{13} + 92t^{16}u^{16} + 86t^{13}u^{19} + 63t^{10}u^{22} + \\
& 32t^7u^{25} + 10t^4u^{28} + tu^{31} + 4t^{29}u^2 + 20t^{26}u^5 + 47t^{23}u^8 + 73t^{20}u^{11} + 87t^{17}u^{14} + 91t^{14}u^{17} + 74t^{11}u^{20} + \\
& 46t^8u^{23} + 20t^5u^{26} + 5t^2u^{29} + 7t^{27}u^3 + 29t^{24}u^6 + 57t^{21}u^9 + 80t^{18}u^{12} + 89t^{15}u^{15} + 80t^{12}u^{18} + 57t^9u^{21} + \\
& 29t^6u^{24} + 7t^3u^{27} + 3t^{28}u + 16t^{25}u^4 + 43t^{22}u^7 + 64t^{19}u^{10} + 84t^{16}u^{13} + 86t^{13}u^{16} + 67t^{10}u^{19} + 39t^7u^{22} + \\
& 16t^4u^{25} + 3tu^{28} + 4t^{26}u^2 + 24t^{23}u^5 + 51t^{20}u^8 + 73t^{17}u^{11} + 84t^{14}u^{14} + 74t^{11}u^{17} + 50t^8u^{20} + 24t^5u^{23} + \\
& 5t^2u^{26} + t^{27} + 11t^{24}u^3 + 36t^{21}u^6 + 57t^{18}u^9 + 78t^{15}u^{12} + 80t^{12}u^{15} + 59t^9u^{18} + 34t^6u^{21} + 12t^3u^{24} + 2u^{27} + \\
& 2t^{25}u + 18t^{22}u^4 + 43t^{19}u^7 + 64t^{16}u^{10} + 77t^{13}u^{13} + 67t^{10}u^{16} + 43t^7u^{19} + 17t^4u^{22} + 3tu^{25} + 7t^{23}u^2 + 27t^{20}u^5 + \\
& 51t^{17}u^8 + 70t^{14}u^{11} + 71t^{11}u^{14} + 50t^8u^{17} + 27t^5u^{20} + 8t^2u^{23} + t^{24} + 13t^{21}u^3 + 35t^{18}u^6 + 55t^{15}u^9 + 68t^{12}u^{12} + \\
& 57t^9u^{15} + 35t^6u^{18} + 11t^3u^{21} + u^{24} + 2t^{22}u + 20t^{19}u^4 + 43t^{16}u^7 + 61t^{13}u^{10} + 60t^{10}u^{13} + 43t^7u^{16} + 19t^4u^{19} + \\
& 5tu^{22} + 8t^{20}u^2 + 27t^{17}u^5 + 46t^{14}u^8 + 57t^{11}u^{11} + 49t^8u^{14} + 27t^5u^{17} + 7t^2u^{20} + 14t^{18}u^3 + 34t^{15}u^6 + 51t^{12}u^9 + \\
& 50t^9u^{12} + 36t^6u^{15} + 12t^3u^{18} + 2u^{21} + 4t^{19}u + 20t^{16}u^4 + 37t^{13}u^7 + 45t^{10}u^{10} + 39t^7u^{13} + 19t^4u^{16} + 3tu^{19} + \\
& 8t^{17}u^2 + 26t^{14}u^5 + 40t^{11}u^8 + 41t^8u^{11} + 26t^5u^{14} + 7t^2u^{17} + t^{18} + 13t^{15}u^3 + 29t^{12}u^6 + 35t^9u^9 + 29t^6u^{12} + \\
& 13t^3u^{15} + u^{18} + 4t^{16}u + 18t^{13}u^4 + 30t^{10}u^7 + 33t^7u^{10} + 19t^4u^{13} + 3tu^{16} + 8t^{14}u^2 + 20t^{11}u^5 + 26t^8u^8 + \\
& 20t^5u^{11} + 7t^2u^{14} + 2t^{15} + 11t^{12}u^3 + 22t^9u^6 + 23t^6u^9 + 12t^3u^{12} + 4t^{13}u + 12t^{10}u^4 + 18t^7u^7 + 13t^4u^{10} + 3tu^{13} + \\
& 7t^{11}u^2 + 16t^8u^5 + 16t^5u^8 + 7t^2u^{11} + t^{12} + 7t^9u^3 + 12t^6u^6 + 8t^3u^9 + u^{12} + 4t^{10}u + 9t^7u^4 + 10t^4u^7 + 2tu^{10} + \\
& 3t^8u^2 + 7t^5u^5 + 4t^2u^8 + 2t^9 + 5t^6u^3 + 6t^3u^6 + u^9 + t^7u + 3t^4u^4 + 2tu^7 + 3t^5u^2 + 3t^2u^5 + t^3u^3 + t^4u + 2tu^4 + u^3
\end{aligned}$$

$$M_K(t, u)_4 = M_K(u, t)_3$$

$$\begin{aligned}
M_K(t, u)_5 = & t^{35}u^{33} + t^{36}u^{31} + t^{33}u^{34} + t^{34}u^{32} + t^{31}u^{35} + 2t^{35}u^{30} + 3t^{32}u^{33} + t^{29}u^{36} + t^{36}u^{28} + 3t^{33}u^{31} + \\
& 2t^{30}u^{34} + 5t^{34}u^{29} + 7t^{31}u^{32} + 3t^{28}u^{35} + 2t^{35}u^{27} + 6t^{32}u^{30} + 4t^{29}u^{33} + t^{26}u^{36} + t^{36}u^{25} + 8t^{33}u^{28} + 11t^{30}u^{31} + \\
& 6t^{27}u^{34} + 5t^{34}u^{26} + 11t^{31}u^{29} + 9t^{28}u^{32} + 3t^{25}u^{35} + 4t^{35}u^{24} + 14t^{32}u^{27} + 17t^{29}u^{30} + 10t^{26}u^{33} + 2t^{23}u^{36} + \\
& 10t^{33}u^{25} + 17t^{30}u^{28} + 16t^{27}u^{31} + 6t^{24}u^{34} + 8t^{34}u^{23} + 20t^{31}u^{26} + 23t^{28}u^{29} + 16t^{25}u^{32} + 5t^{22}u^{35} + 2t^{35}u^{21} + \\
& 16t^{32}u^{24} + 26t^{29}u^{27} + 23t^{26}u^{30} + 11t^{23}u^{33} + t^{20}u^{36} + t^{36}u^{19} + 14t^{33}u^{22} + 29t^{30}u^{25} + 32t^{27}u^{28} + 24t^{24}u^{31} + \\
& 9t^{21}u^{34} + 7t^{34}u^{20} + 24t^{31}u^{23} + 35t^{28}u^{26} + 32t^{25}u^{29} + 18t^{22}u^{32} + 3t^{19}u^{35} + 3t^{35}u^{18} + 20t^{32}u^{21} + 37t^{29}u^{24} + \\
& 41t^{26}u^{27} + 32t^{23}u^{30} + 14t^{20}u^{33} + t^{17}u^{36} + t^{36}u^{16} + 12t^{33}u^{19} + 34t^{30}u^{22} + 44t^{27}u^{25} + 42t^{24}u^{28} + 26t^{21}u^{31} + \\
& 8t^{18}u^{34} + 7t^{34}u^{17} + 27t^{31}u^{20} + 47t^{28}u^{23} + 53t^{25}u^{26} + 40t^{22}u^{29} + 20t^{19}u^{32} + 3t^{16}u^{35} + 4t^{35}u^{15} + 19t^{32}u^{18} + \\
& 44t^{29}u^{21} + 55t^{26}u^{24} + 52t^{23}u^{27} + 35t^{20}u^{30} + 14t^{17}u^{33} + 2t^{36}u^{13} + 12t^{33}u^{16} + 35t^{30}u^{19} + 55t^{27}u^{22} + 64t^{24}u^{25} + \\
& 49t^{21}u^{28} + 27t^{18}u^{31} + 7t^{15}u^{34} + 7t^{34}u^{14} + 27t^{31}u^{17} + 51t^{28}u^{20} + 66t^{25}u^{23} + 61t^{22}u^{26} + 44t^{19}u^{29} + 20t^{16}u^{32} + \\
& 3t^{13}u^{35} + 4t^{35}u^{12} + 18t^{32}u^{15} + 43t^{29}u^{18} + 65t^{26}u^{21} + 73t^{23}u^{24} + 57t^{20}u^{27} + 35t^{17}u^{30} + 12t^{14}u^{33} + t^{11}u^{36} + \\
& t^{36}u^{10} + 11t^{33}u^{13} + 35t^{30}u^{16} + 59t^{27}u^{19} + 77t^{24}u^{22} + 71t^{21}u^{25} + 51t^{18}u^{28} + 26t^{15}u^{31} + 6t^{12}u^{34} + 7t^{34}u^{11} + \\
& 26t^{31}u^{14} + 51t^{28}u^{17} + 74t^{25}u^{20} + 80t^{22}u^{23} + 65t^{19}u^{26} + 44t^{16}u^{29} + 18t^{13}u^{32} + 2t^{10}u^{35} + 3t^{35}u^9 + 16t^{32}u^{12} + \\
& 40t^{29}u^{15} + 67t^{26}u^{18} + 84t^{23}u^{21} + 80t^{20}u^{24} + 57t^{17}u^{27} + 34t^{14}u^{30} + 9t^{11}u^{33} + t^8u^{36} + t^{36}u^7 + 9t^{33}u^{10} + \\
& 32t^{30}u^{13} + 59t^{27}u^{16} + 80t^{24}u^{19} + 85t^{21}u^{22} + 73t^{18}u^{25} + 51t^{15}u^{28} + 24t^{12}u^{31} + 5t^9u^{34} + 4t^{34}u^8 + 20t^{31}u^{11} + \\
& 46t^{28}u^{14} + 74t^{25}u^{17} + 90t^{22}u^{20} + 85t^{19}u^{23} + 65t^{16}u^{26} + 38t^{13}u^{29} + 12t^{10}u^{32} + 2t^7u^{35} + 2t^{35}u^6 + 13t^{32}u^9 + \\
& 37t^{29}u^{12} + 67t^{26}u^{15} + 86t^{23}u^{18} + 89t^{20}u^{21} + 80t^{17}u^{24} + 57t^{14}u^{27} + 29t^{11}u^{30} + 7t^8u^{33} + t^5u^{36} + 6t^{33}u^7 + \\
& 23t^{30}u^{10} + 52t^{27}u^{13} + 80t^{24}u^{16} + 93t^{21}u^{19} + 87t^{18}u^{22} + 73t^{15}u^{25} + 42t^{12}u^{28} + 16t^9u^{31} + 2t^6u^{34} + 3t^{34}u^5 + \\
& 16t^{31}u^8 + 40t^{28}u^{11} + 71t^{25}u^{14} + 90t^{22}u^{17} + 91t^{19}u^{20} + 85t^{16}u^{23} + 62t^{13}u^{26} + 32t^{10}u^{29} + 9t^7u^{32} + 2t^4u^{35} + \\
& 6t^{32}u^6 + 24t^{29}u^9 + 55t^{26}u^{12} + 84t^{23}u^{15} + 92t^{20}u^{18} + 89t^{17}u^{21} + 77t^{14}u^{24} + 45t^{11}u^{27} + 17t^8u^{30} + 3t^5u^{33} + \\
& 4t^{33}u^4 + 17t^{30}u^7 + 42t^{27}u^{10} + 73t^{24}u^{13} + 93t^{21}u^{16} + 92t^{18}u^{19} + 89t^{15}u^{22} + 64t^{12}u^{25} + 33t^9u^{28} + 11t^6u^{31} + \\
& 2t^3u^{34} + 7t^{31}u^5 + 26t^{28}u^8 + 57t^{25}u^{11} + 87t^{22}u^{14} + 91t^{19}u^{17} + 91t^{16}u^{20} + 78t^{13}u^{23} + 47t^{10}u^{26} + 17t^7u^{29} + \\
& 3t^4u^{32} + 4t^{32}u^3 + 17t^{29}u^6 + 42t^{26}u^9 + 73t^{23}u^{12} + 93t^{20}u^{15} + 92t^{17}u^{18} + 89t^{14}u^{21} + 64t^{11}u^{24} + 33t^8u^{27} + \\
& 11t^5u^{30} + 2t^2u^{33} + 6t^{30}u^4 + 24t^{27}u^7 + 55t^{24}u^{10} + 84t^{21}u^{13} + 92t^{18}u^{16} + 89t^{15}u^{19} + 77t^{12}u^{22} + 45t^9u^{25} + \\
& 17t^6u^{28} + 3t^3u^{31} + 3t^{31}u^2 + 16t^{28}u^5 + 40t^{25}u^8 + 71t^{22}u^{11} + 90t^{19}u^{14} + 91t^{16}u^{17} + 85t^{13}u^{20} + 62t^{10}u^{23} + \\
& 32t^7u^{26} + 9t^4u^{29} + 2tu^{32} + 6t^{29}u^3 + 23t^{26}u^6 + 52t^{23}u^9 + 80t^{20}u^{12} + 93t^{17}u^{15} + 87t^{14}u^{18} + 73t^{11}u^{21} + \\
& 42t^8u^{24} + 16t^5u^{27} + 2t^2u^{30} + 2t^{30}u + 13t^{27}u^4 + 37t^{24}u^7 + 67t^{21}u^{10} + 86t^{18}u^{13} + 89t^{15}u^{16} + 80t^{12}u^{19} + \\
& 57t^9u^{22} + 29t^6u^{25} + 7t^3u^{28} + u^{31} + 4t^{28}u^2 + 20t^{25}u^5 + 46t^{22}u^8 + 74t^{19}u^{11} + 90t^{16}u^{14} + 85t^{13}u^{17} + 65t^{10}u^{20} + \\
& 38t^7u^{23} + 12t^4u^{26} + 2tu^{29} + t^{29} + 9t^{26}u^3 + 32t^{23}u^6 + 59t^{20}u^9 + 80t^{17}u^{12} + 85t^{14}u^{15} + 73t^{11}u^{18} + 51t^8u^{21} + \\
& 24t^5u^{24} + 5t^2u^{27} + 3t^{27}u + 16t^{24}u^4 + 40t^{21}u^7 + 67t^{18}u^{10} + 84t^{15}u^{13} + 80t^{12}u^{16} + 57t^9u^{19} + 34t^6u^{22} + \\
& 9t^3u^{25} + u^{28} + 7t^{25}u^2 + 26t^{22}u^5 + 51t^{19}u^8 + 74t^{16}u^{11} + 80t^{13}u^{14} + 65t^{10}u^{17} + 44t^7u^{20} + 18t^4u^{23} + 2tu^{26} + \\
& t^{26} + 11t^{23}u^3 + 35t^{20}u^6 + 59t^{17}u^9 + 77t^{14}u^{12} + 71t^{11}u^{15} + 51t^8u^{18} + 26t^5u^{21} + 6t^2u^{24} + 4t^{24}u + 18t^{21}u^4 + \\
& 43t^{18}u^7 + 65t^{15}u^{10} + 73t^{12}u^{13} + 57t^9u^{16} + 35t^6u^{19} + 12t^3u^{22} + u^{25} + 7t^{22}u^2 + 27t^{19}u^5 + 51t^{16}u^8 + 66t^{13}u^{11} + \\
& 61t^{10}u^{14} + 44t^7u^{17} + 20t^4u^{20} + 3tu^{23} + 2t^{23} + 12t^{20}u^3 + 35t^{17}u^6 + 55t^{14}u^9 + 64t^{11}u^{12} + 49t^8u^{15} + 27t^5u^{18} + \\
& 7t^2u^{21} + 4t^{21}u + 19t^{18}u^4 + 44t^{15}u^7 + 55t^{12}u^{10} + 52t^9u^{13} + 35t^6u^{16} + 14t^3u^{19} + 7t^{19}u^2 + 27t^{16}u^5 + 47t^{13}u^8 + \\
& 53t^{10}u^{11} + 40t^7u^{14} + 20t^4u^{17} + 3tu^{20} + t^{20} + 12t^{17}u^3 + 34t^{14}u^6 + 44t^{11}u^9 + 42t^8u^{12} + 26t^5u^{15} + 8t^2u^{18} + \\
& 3t^{18}u + 20t^{15}u^4 + 37t^{12}u^7 + 41t^9u^{10} + 32t^6u^{13} + 14t^3u^{16} + u^{19} + 7t^{16}u^2 + 24t^{13}u^5 + 35t^{10}u^8 + 32t^7u^{11} + \\
& 18t^4u^{14} + 3tu^{17} + t^{17} + 14t^{14}u^3 + 29t^{11}u^6 + 32t^8u^9 + 24t^5u^{12} + 9t^2u^{15} + 2t^{15}u + 16t^{12}u^4 + 26t^9u^7 + 23t^6u^{10} + \\
& 11t^3u^{13} + u^{16} + 8t^{13}u^2 + 20t^{10}u^5 + 23t^7u^8 + 16t^4u^{11} + 5tu^{14} + 10t^{11}u^3 + 17t^8u^6 + 16t^5u^9 + 6t^2u^{12} + 4t^{12}u + \\
& 14t^9u^4 + 17t^6u^7 + 10t^3u^{10} + 2u^{13} + 5t^{10}u^2 + 11t^7u^5 + 9t^4u^8 + 3tu^{11} + t^{11} + 8t^8u^3 + 11t^5u^6 + 6t^2u^9 + 2t^9u + \\
& 6t^6u^4 + 4t^3u^7 + u^{10} + 5t^7u^2 + 7t^4u^5 + 3tu^8 + t^8 + 3t^5u^3 + 2t^2u^6 + 2t^6u + 3t^3u^4 + u^7 + t^4u^2 + tu^5 + t^5 + t^2u^3 + t^3u
\end{aligned}$$

$$\begin{aligned}
M_K(t, u)_6 = & t^{35}u^{36} + t^{34}u^{35} + t^{36}u^{31} + 2t^{33}u^{34} + t^{34}u^{32} + t^{31}u^{35} + t^{35}u^{30} + 4t^{32}u^{33} + 3t^{33}u^{31} + 2t^{30}u^{34} + \\
& 4t^{34}u^{29} + 7t^{31}u^{32} + 2t^{28}u^{35} + 2t^{35}u^{27} + 6t^{32}u^{30} + 6t^{29}u^{33} + t^{36}u^{25} + 8t^{33}u^{28} + 11t^{30}u^{31} + 5t^{27}u^{34} + 4t^{34}u^{26} + \\
& 11t^{31}u^{29} + 10t^{28}u^{32} + 2t^{25}u^{35} + 3t^{35}u^{24} + 13t^{32}u^{27} + 18t^{29}u^{30} + 9t^{26}u^{33} + t^{23}u^{36} + t^{36}u^{22} + 9t^{33}u^{25} + \\
& 18t^{30}u^{28} + 16t^{27}u^{31} + 6t^{24}u^{34} + 7t^{34}u^{23} + 20t^{31}u^{26} + 25t^{28}u^{29} + 16t^{25}u^{32} + 3t^{22}u^{35} + 4t^{35}u^{21} + 16t^{32}u^{24} + \\
& 25t^{29}u^{27} + 24t^{26}u^{30} + 11t^{23}u^{33} + 2t^{20}u^{36} + 2t^{36}u^{19} + 11t^{33}u^{22} + 29t^{30}u^{25} + 33t^{27}u^{28} + 24t^{24}u^{31} + 7t^{21}u^{34} + \\
& 8t^{34}u^{20} + 24t^{31}u^{23} + 34t^{28}u^{26} + 33t^{25}u^{29} + 17t^{22}u^{32} + 5t^{19}u^{35} + 5t^{35}u^{18} + 18t^{32}u^{21} + 38t^{29}u^{24} + 43t^{26}u^{27} + \\
& 33t^{23}u^{30} + 12t^{20}u^{33} + 2t^{17}u^{36} + 2t^{36}u^{16} + 13t^{33}u^{19} + 33t^{30}u^{22} + 45t^{27}u^{25} + 43t^{24}u^{28} + 26t^{21}u^{31} + 8t^{18}u^{34} + \\
& 8t^{34}u^{17} + 27t^{31}u^{20} + 47t^{28}u^{23} + 54t^{25}u^{26} + 41t^{22}u^{29} + 19t^{19}u^{32} + 5t^{16}u^{35} + 4t^{35}u^{15} + 19t^{32}u^{18} + 40t^{29}u^{21} + \\
& 56t^{26}u^{24} + 53t^{23}u^{27} + 34t^{20}u^{30} + 12t^{17}u^{33} + t^{14}u^{36} + t^{36}u^{13} + 13t^{33}u^{16} + 34t^{30}u^{19} + 57t^{27}u^{22} + 64t^{24}u^{25} + \\
& 49t^{21}u^{28} + 27t^{18}u^{31} + 9t^{15}u^{34} + 8t^{34}u^{14} + 27t^{31}u^{17} + 49t^{28}u^{20} + 67t^{25}u^{23} + 65t^{22}u^{26} + 41t^{19}u^{29} + 19t^{16}u^{32} + \\
& 3t^{13}u^{35} + 3t^{35}u^{12} + 20t^{32}u^{15} + 41t^{29}u^{18} + 67t^{26}u^{21} + 74t^{23}u^{24} + 58t^{20}u^{27} + 34t^{17}u^{30} + 14t^{14}u^{33} + t^{11}u^{36} + \\
& 12t^{33}u^{13} + 34t^{30}u^{16} + 57t^{27}u^{19} + 76t^{24}u^{22} + 73t^{21}u^{25} + 49t^{18}u^{28} + 26t^{15}u^{31} + 6t^{12}u^{34} + 7t^{34}u^{11} + 26t^{31}u^{14} + \\
& 49t^{28}u^{17} + 73t^{25}u^{20} + 83t^{22}u^{23} + 65t^{19}u^{26} + 41t^{16}u^{29} + 19t^{13}u^{32} + 3t^{10}u^{35} + 2t^{35}u^9 + 16t^{32}u^{12} + 42t^{29}u^{15} +
\end{aligned}$$

$$\begin{aligned}
& 65t^{26}u^{18} + 84t^{23}u^{21} + 79t^{20}u^{24} + 58t^{17}u^{27} + 33t^{14}u^{30} + 10t^{11}u^{33} + 11t^{33}u^{10} + 33t^{30}u^{13} + 57t^{27}u^{16} + \\
& 79t^{24}u^{19} + 91t^{21}u^{22} + 73t^{18}u^{25} + 49t^{15}u^{28} + 24t^{12}u^{31} + 6t^9u^{34} + 3t^{34}u^8 + 20t^{31}u^{11} + 48t^{28}u^{14} + 73t^{25}u^{17} + \\
& 89t^{22}u^{20} + 84t^{19}u^{23} + 65t^{16}u^{26} + 39t^{13}u^{29} + 13t^{10}u^{32} + t^{35}u^6 + 14t^{32}u^9 + 38t^{29}u^{12} + 63t^{26}u^{15} + 84t^{23}u^{18} + \\
& 93t^{20}u^{21} + 79t^{17}u^{24} + 54t^{14}u^{27} + 29t^{11}u^{30} + 8t^8u^{33} + t^5u^{36} + 5t^{33}u^7 + 24t^{30}u^{10} + 52t^{27}u^{13} + 79t^{24}u^{16} + \\
& 91t^{21}u^{19} + 89t^{18}u^{22} + 71t^{15}u^{25} + 43t^{12}u^{28} + 16t^9u^{31} + 2t^6u^{34} + 3t^{34}u^5 + 16t^{31}u^8 + 41t^{28}u^{11} + 70t^{25}u^{14} + \\
& 89t^{22}u^{17} + 94t^{19}u^{20} + 84t^{16}u^{23} + 60t^{13}u^{26} + 32t^{10}u^{29} + 10t^7u^{32} + t^4u^{35} + 6t^{32}u^6 + 26t^{29}u^9 + 56t^{26}u^{12} + \\
& 82t^{23}u^{15} + 94t^{20}u^{18} + 93t^{17}u^{21} + 76t^{14}u^{24} + 44t^{11}u^{27} + 18t^8u^{30} + 3t^5u^{33} + t^{36}u + 3t^{33}u^4 + 18t^{30}u^7 + \\
& 41t^{27}u^{10} + 74t^{24}u^{13} + 91t^{21}u^{16} + 94t^{18}u^{19} + 85t^{15}u^{22} + 64t^{12}u^{25} + 33t^9u^{28} + 11t^6u^{31} + t^3u^{34} + 7t^{31}u^5 + \\
& 27t^{28}u^8 + 57t^{25}u^{11} + 82t^{22}u^{14} + 94t^{19}u^{17} + 94t^{16}u^{20} + 77t^{13}u^{23} + 44t^{10}u^{26} + 20t^7u^{29} + 3t^4u^{32} + tu^{35} + t^{35} + \\
& 3t^{32}u^3 + 18t^{29}u^6 + 41t^{26}u^9 + 74t^{23}u^{12} + 91t^{20}u^{15} + 94t^{17}u^{18} + 85t^{14}u^{21} + 64t^{11}u^{24} + 33t^8u^{27} + 11t^5u^{30} + \\
& t^2u^{33} + 6t^{30}u^4 + 26t^{27}u^7 + 56t^{24}u^{10} + 82t^{21}u^{13} + 94t^{18}u^{16} + 93t^{15}u^{19} + 76t^{12}u^{22} + 44t^9u^{25} + 18t^6u^{28} + \\
& 3t^3u^{31} + 3t^{31}u^2 + 16t^{28}u^5 + 41t^{25}u^8 + 70t^{22}u^{11} + 89t^{19}u^{14} + 94t^{16}u^{17} + 84t^{13}u^{20} + 60t^{10}u^{23} + 32t^7u^{26} + \\
& 10t^4u^{29} + tu^{32} + 5t^{29}u^3 + 24t^{26}u^6 + 52t^{23}u^9 + 79t^{20}u^{12} + 91t^{17}u^{15} + 89t^{14}u^{18} + 71t^{11}u^{21} + 43t^8u^{24} + \\
& 16t^5u^{27} + 2t^2u^{30} + t^{30}u + 14t^{27}u^4 + 38t^{24}u^7 + 63t^{21}u^{10} + 84t^{18}u^{13} + 93t^{15}u^{16} + 79t^{12}u^{19} + 54t^9u^{22} + \\
& 29t^6u^{25} + 8t^3u^{28} + u^{31} + 3t^{28}u^2 + 20t^{25}u^5 + 48t^{22}u^8 + 73t^{19}u^{11} + 89t^{16}u^{14} + 84t^{13}u^{17} + 65t^{10}u^{20} + 39t^7u^{23} + \\
& 13t^4u^{26} + 11t^{26}u^3 + 33t^{23}u^6 + 57t^{20}u^9 + 79t^{17}u^{12} + 91t^{14}u^{15} + 73t^{11}u^{18} + 49t^8u^{21} + 24t^5u^{24} + 6t^2u^{27} + \\
& 2t^{27}u + 16t^{24}u^4 + 42t^{21}u^7 + 65t^{18}u^{10} + 84t^{15}u^{13} + 79t^{12}u^{16} + 58t^9u^{19} + 33t^6u^{22} + 10t^3u^{25} + 7t^{25}u^2 + \\
& 26t^{22}u^5 + 49t^{19}u^8 + 73t^{16}u^{11} + 83t^{13}u^{14} + 65t^{10}u^{17} + 41t^7u^{20} + 19t^4u^{23} + 3tu^{26} + 12t^{23}u^3 + 34t^{20}u^6 + \\
& 57t^{17}u^9 + 76t^{14}u^{12} + 73t^{11}u^{15} + 49t^8u^{18} + 26t^5u^{21} + 6t^2u^{24} + 3t^{24}u + 20t^{21}u^4 + 41t^{18}u^7 + 67t^{15}u^{10} + \\
& 74t^{12}u^{13} + 58t^9u^{16} + 34t^6u^{19} + 14t^3u^{22} + u^{25} + 8t^{22}u^2 + 27t^{19}u^5 + 49t^{16}u^8 + 67t^{13}u^{11} + 65t^{10}u^{14} + 41t^7u^{17} + \\
& 19t^4u^{20} + 3tu^{23} + t^{23} + 13t^{20}u^3 + 34t^{17}u^6 + 57t^{14}u^9 + 64t^{11}u^{12} + 49t^8u^{15} + 27t^5u^{18} + 9t^2u^{21} + 4t^{21}u + \\
& 19t^{18}u^4 + 40t^{15}u^7 + 56t^{12}u^{10} + 53t^9u^{13} + 34t^6u^{16} + 12t^3u^{19} + u^{22} + 8t^{19}u^2 + 27t^{16}u^5 + 47t^{13}u^8 + 54t^{10}u^{11} + \\
& 41t^7u^{14} + 19t^4u^{17} + 5tu^{20} + 2t^{20} + 13t^{17}u^3 + 33t^{14}u^6 + 45t^{11}u^9 + 43t^8u^{12} + 26t^5u^{15} + 8t^2u^{18} + 5t^{18}u + \\
& 18t^{15}u^4 + 38t^{12}u^7 + 43t^9u^{10} + 33t^6u^{13} + 12t^3u^{16} + 2u^{19} + 8t^{16}u^2 + 24t^{13}u^5 + 34t^{10}u^8 + 33t^7u^{11} + 17t^4u^{14} + \\
& 5tu^{17} + 2t^{17} + 11t^{14}u^3 + 29t^{11}u^6 + 33t^8u^9 + 24t^5u^{12} + 7t^2u^{15} + 4t^{15}u + 16t^{12}u^4 + 25t^9u^7 + 24t^6u^{10} + \\
& 11t^3u^{13} + 2u^{16} + 7t^{13}u^2 + 20t^{10}u^5 + 25t^7u^8 + 16t^4u^{11} + 3tu^{14} + t^{14} + 9t^{11}u^3 + 18t^8u^6 + 16t^5u^9 + 6t^2u^{12} + \\
& 3t^{12}u + 13t^9u^4 + 18t^6u^7 + 9t^3u^{10} + u^{13} + 4t^{10}u^2 + 11t^7u^5 + 10t^4u^8 + 2tu^{11} + t^{11} + 8t^8u^3 + 11t^5u^6 + 5t^2u^9 + \\
& 2t^9u + 6t^6u^4 + 6t^3u^7 + 4t^7u^2 + 7t^4u^5 + 2tu^8 + 3t^5u^3 + 2t^2u^6 + t^6u + 4t^3u^4 + t^4u^2 + tu^5 + t^5 + 2t^2u^3 + tu^2 + u
\end{aligned}$$

$$M_K(t, u)_7 = M_K(u, t)_6$$

$$M_K(t, u)_8 = M_K(u, t)_5$$

$$\begin{aligned}
M_K(t, u)_9 = & (2t^{28}u^{28} + t^{29}u^{26} + t^{26}u^{29} + 2t^{30}u^{24} + 4t^{27}u^{27} + 2t^{24}u^{30} + 3t^{28}u^{25} + 3t^{25}u^{28} + 5t^{29}u^{23} + \\
& 10t^{26}u^{26} + 5t^{23}u^{29} + t^{30}u^{21} + 8t^{27}u^{24} + 8t^{24}u^{27} + t^{21}u^{30} + 8t^{28}u^{22} + 18t^{25}u^{25} + 8t^{22}u^{28} + 4t^{29}u^{20} + \\
& 14t^{26}u^{23} + 14t^{23}u^{26} + 4t^{20}u^{29} + t^{30}u^{18} + 14t^{27}u^{21} + 24t^{24}u^{24} + 14t^{21}u^{27} + t^{18}u^{30} + 8t^{28}u^{19} + 24t^{25}u^{22} + \\
& 24t^{22}u^{25} + 8t^{19}u^{28} + 3t^{29}u^{17} + 20t^{26}u^{20} + 30t^{23}u^{23} + 20t^{20}u^{26} + 3t^{17}u^{29} + t^{30}u^{15} + 13t^{27}u^{18} + 32t^{24}u^{21} + \\
& 32t^{21}u^{24} + 13t^{18}u^{27} + t^{15}u^{30} + 8t^{28}u^{16} + 27t^{25}u^{19} + 38t^{22}u^{22} + 27t^{19}u^{25} + 8t^{16}u^{28} + 3t^{29}u^{14} + 20t^{26}u^{17} + \\
& 39t^{23}u^{20} + 39t^{20}u^{23} + 20t^{17}u^{26} + 3t^{14}u^{29} + t^{30}u^{12} + 13t^{27}u^{15} + 34t^{24}u^{18} + 42t^{21}u^{21} + 34t^{18}u^{24} + 13t^{15}u^{27} + \\
& t^{12}u^{30} + 7t^{28}u^{13} + 27t^{25}u^{16} + 42t^{22}u^{19} + 42t^{19}u^{22} + 27t^{16}u^{25} + 7t^{13}u^{28} + 4t^{29}u^{11} + 19t^{26}u^{14} + 41t^{23}u^{17} + \\
& 44t^{20}u^{20} + 41t^{17}u^{23} + 19t^{14}u^{26} + 4t^{11}u^{29} + t^{30}u^9 + 13t^{27}u^{12} + 34t^{24}u^{15} + 45t^{21}u^{18} + 45t^{18}u^{21} + 34t^{15}u^{24} + \\
& 13t^{12}u^{27} + t^9u^{30} + 7t^{28}u^{10} + 27t^{25}u^{13} + 43t^{22}u^{16} + 46t^{19}u^{19} + 43t^{16}u^{22} + 27t^{13}u^{25} + 7t^{10}u^{28} + 4t^{29}u^8 + \\
& 19t^{26}u^{11} + 40t^{23}u^{14} + 45t^{20}u^{17} + 45t^{17}u^{20} + 40t^{14}u^{23} + 19t^{11}u^{26} + 4t^8u^{29} + 2t^{30}u^6 + 12t^{27}u^9 + 34t^{24}u^{12} + \\
& 45t^{21}u^{15} + 46t^{18}u^{18} + 45t^{15}u^{21} + 34t^{12}u^{24} + 12t^9u^{27} + 2t^6u^{30} + 6t^{28}u^7 + 27t^{25}u^{10} + 44t^{22}u^{13} + 46t^{19}u^{16} + \\
& 46t^{16}u^{19} + 44t^{13}u^{22} + 27t^{10}u^{25} + 6t^7u^{28} + 3t^{29}u^5 + 18t^{26}u^8 + 38t^{23}u^{11} + 48t^{20}u^{14} + 44t^{17}u^{17} + 48t^{14}u^{20} + \\
& 38t^{11}u^{23} + 18t^8u^{26} + 3t^5u^{29} + 8t^{27}u^6 + 32t^{24}u^9 + 45t^{21}u^{12} + 46t^{18}u^{15} + 46t^{15}u^{18} + 45t^{12}u^{21} + 32t^9u^{24} + \\
& 8t^6u^{27} + 5t^{28}u^4 + 24t^{25}u^7 + 43t^{22}u^{10} + 47t^{19}u^{13} + 44t^{16}u^{16} + 47t^{13}u^{19} + 43t^{10}u^{22} + 24t^7u^{25} + 5t^4u^{28} + \\
& 9t^{26}u^5 + 33t^{23}u^8 + 47t^{20}u^{11} + 46t^{17}u^{14} + 46t^{14}u^{17} + 47t^{11}u^{20} + 33t^8u^{23} + 9t^5u^{26} + 5t^{27}u^3 + 24t^{24}u^6 + \\
& 46t^{21}u^9 + 46t^{18}u^{12} + 46t^{15}u^{15} + 46t^{12}u^{18} + 46t^9u^{21} + 24t^6u^{24} + 5t^3u^{27} + 9t^{25}u^4 + 33t^{22}u^7 + 47t^{19}u^{10} + \\
& 46t^{16}u^{13} + 46t^{13}u^{16} + 47t^{10}u^{19} + 33t^7u^{22} + 9t^4u^{25} + 5t^{26}u^2 + 24t^{23}u^5 + 43t^{20}u^8 + 47t^{17}u^{11} + 44t^{14}u^{14} + \\
& 47t^{11}u^{17} + 43t^8u^{20} + 24t^5u^{23} + 5t^2u^{26} + 8t^{24}u^3 + 32t^{21}u^6 + 45t^{18}u^9 + 46t^{15}u^{12} + 46t^{12}u^{15} + 45t^9u^{18} + \\
& 32t^6u^{21} + 8t^3u^{24} + 3t^{25}u + 18t^{22}u^4 + 38t^{19}u^7 + 48t^{16}u^{10} + 44t^{13}u^{13} + 48t^{10}u^{16} + 38t^7u^{19} + 18t^4u^{22} + 3tu^{25} + \\
& 6t^{23}u^2 + 27t^{20}u^5 + 44t^{17}u^8 + 46t^{14}u^{11} + 46t^{11}u^{14} + 44t^8u^{17} + 27t^5u^{20} + 6t^2u^{23} + 2t^{24} + 12t^{21}u^3 + 34t^{18}u^6 + \\
& 45t^{15}u^9 + 46t^{12}u^{12} + 45t^9u^{15} + 34t^6u^{18} + 12t^3u^{21} + 2u^{24} + 4t^{22}u + 19t^{19}u^4 + 40t^{16}u^7 + 45t^{13}u^{10} + 45t^{10}u^{13} + \\
& 40t^7u^{16} + 19t^4u^{19} + 4tu^{22} + 7t^{20}u^2 + 27t^{17}u^5 + 43t^{14}u^8 + 46t^{11}u^{11} + 43t^8u^{14} + 27t^5u^{17} + 7t^2u^{20} + t^{21} +
\end{aligned}$$

$$13t^{18}u^3 + 34t^{15}u^6 + 45t^{12}u^9 + 45t^9u^{12} + 34t^6u^{15} + 13t^3u^{18} + u^{21} + 4t^{19}u + 19t^{16}u^4 + 41t^{13}u^7 + 44t^{10}u^{10} + 41t^7u^{13} + 19t^4u^{16} + 4tu^{19} + 7t^{17}u^2 + 27t^{14}u^5 + 42t^{11}u^8 + 42t^8u^{11} + 27t^5u^{14} + 7t^2u^{17} + t^{18} + 13t^{15}u^3 + 34t^{12}u^6 + 42t^9u^9 + 34t^6u^{12} + 13t^3u^{15} + u^{18} + 3t^{16}u + 20t^{13}u^4 + 39t^{10}u^7 + 39t^7u^{10} + 20t^4u^{13} + 3tu^{16} + 8t^{14}u^2 + 27t^{11}u^5 + 38t^8u^8 + 27t^5u^{11} + 8t^2u^{14} + t^{15} + 13t^{12}u^3 + 32t^9u^6 + 32t^6u^9 + 13t^3u^{12} + u^{15} + 3t^{13}u + 20t^{10}u^4 + 30t^7u^7 + 20t^4u^{10} + 3tu^{13} + 8t^{11}u^2 + 24t^8u^5 + 24t^5u^8 + 8t^2u^{11} + t^{12} + 14t^9u^3 + 24t^6u^6 + 14t^3u^9 + u^{12} + 4t^{10}u + 14t^7u^4 + 14t^4u^7 + 4tu^{10} + 8t^8u^2 + 18t^5u^5 + 8t^2u^8 + t^9 + 8t^6u^3 + 8t^3u^6 + u^9 + 5t^7u + 10t^4u^4 + 5tu^7 + 3t^5u^2 + 3t^2u^5 + 2t^6 + 4t^3u^3 + 2u^6 + t^4u + tu^4 + 2t^2u^2) (u^2 + 1) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1)$$

$$M_K(t, u)_{10} = (t^{28}u^{30} + t^{30}u^{26} + 2t^{27}u^{29} + t^{28}u^{27} + 3t^{29}u^{25} + 5t^{26}u^{28} + 4t^{27}u^{26} + 2t^{24}u^{29} + 6t^{28}u^{24} + 9t^{25}u^{27} + t^{22}u^{30} + 3t^{29}u^{22} + 9t^{26}u^{25} + 6t^{23}u^{28} + 2t^{30}u^{20} + 11t^{27}u^{23} + 16t^{24}u^{26} + 3t^{21}u^{29} + 7t^{28}u^{21} + 18t^{25}u^{24} + 12t^{22}u^{27} + t^{19}u^{30} + 4t^{29}u^{19} + 18t^{26}u^{22} + 24t^{23}u^{25} + 7t^{20}u^{28} + 2t^{30}u^{17} + 12t^{27}u^{20} + 28t^{24}u^{23} + 18t^{21}u^{26} + 4t^{18}u^{29} + 8t^{28}u^{18} + 27t^{25}u^{21} + 32t^{22}u^{24} + 13t^{19}u^{27} + t^{16}u^{30} + 5t^{29}u^{16} + 19t^{26}u^{19} + 35t^{23}u^{22} + 27t^{20}u^{25} + 7t^{17}u^{28} + t^{30}u^{14} + 13t^{27}u^{17} + 32t^{24}u^{20} + 40t^{21}u^{23} + 19t^{18}u^{26} + 4t^{15}u^{29} + 8t^{28}u^{15} + 27t^{25}u^{18} + 40t^{22}u^{21} + 34t^{19}u^{24} + 12t^{16}u^{27} + 2t^{13}u^{30} + 4t^{29}u^{13} + 19t^{26}u^{16} + 38t^{23}u^{19} + 44t^{20}u^{22} + 27t^{17}u^{25} + 8t^{14}u^{28} + t^{30}u^{11} + 14t^{27}u^{14} + 32t^{24}u^{17} + 46t^{21}u^{20} + 38t^{18}u^{23} + 19t^{15}u^{26} + 4t^{12}u^{29} + 8t^{28}u^{12} + 27t^{25}u^{15} + 42t^{22}u^{18} + 45t^{19}u^{21} + 34t^{16}u^{24} + 12t^{13}u^{27} + 2t^{10}u^{30} + 3t^{29}u^{10} + 20t^{26}u^{13} + 36t^{23}u^{16} + 47t^{20}u^{19} + 43t^{17}u^{22} + 27t^{14}u^{25} + 8t^{11}u^{28} + t^{30}u^8 + 13t^{27}u^{11} + 34t^{24}u^{14} + 44t^{21}u^{17} + 47t^{18}u^{20} + 38t^{15}u^{23} + 19t^{12}u^{26} + 5t^9u^{29} + 7t^{28}u^9 + 27t^{25}u^{12} + 42t^{22}u^{15} + 46t^{19}u^{18} + 47t^{16}u^{21} + 32t^{13}u^{24} + 13t^{10}u^{27} + 3t^{29}u^7 + 20t^{26}u^{10} + 39t^{23}u^{13} + 46t^{20}u^{16} + 47t^{17}u^{19} + 41t^{14}u^{22} + 27t^{11}u^{25} + 8t^8u^{28} + 11t^{27}u^8 + 34t^{24}u^{11} + 43t^{21}u^{14} + 47t^{18}u^{17} + 47t^{15}u^{20} + 38t^{12}u^{23} + 18t^9u^{26} + 2t^6u^{29} + 6t^{28}u^6 + 27t^{25}u^9 + 42t^{22}u^{12} + 46t^{19}u^{15} + 46t^{16}u^{18} + 46t^{13}u^{21} + 32t^{10}u^{24} + 13t^7u^{27} + t^4u^{30} + t^{29}u^4 + 14t^{26}u^7 + 41t^{23}u^{10} + 44t^{20}u^{13} + 48t^{17}u^{16} + 46t^{14}u^{19} + 42t^{11}u^{22} + 24t^8u^{25} + 3t^5u^{28} + t^{30}u^2 + 9t^{27}u^5 + 32t^{24}u^8 + 45t^{21}u^{11} + 46t^{18}u^{14} + 47t^{15}u^{17} + 47t^{12}u^{20} + 36t^9u^{23} + 16t^6u^{26} + t^3u^{29} + t^{28}u^3 + 18t^{25}u^6 + 42t^{22}u^9 + 46t^{19}u^{12} + 46t^{16}u^{15} + 47t^{13}u^{18} + 44t^{10}u^{21} + 28t^7u^{24} + 4t^4u^{27} + t^{29}u + 10t^{26}u^4 + 34t^{23}u^7 + 45t^{20}u^{10} + 45t^{17}u^{13} + 48t^{14}u^{16} + 46t^{11}u^{19} + 39t^8u^{22} + 18t^5u^{25} + 2t^2u^{28} + t^{27}u^2 + 18t^{24}u^5 + 42t^{21}u^8 + 46t^{18}u^{11} + 46t^{15}u^{14} + 47t^{12}u^{17} + 44t^9u^{20} + 28t^6u^{23} + 4t^3u^{26} + t^{28} + 9t^{25}u^3 + 32t^{22}u^6 + 45t^{19}u^9 + 46t^{16}u^{12} + 47t^{13}u^{15} + 47t^{10}u^{18} + 36t^7u^{21} + 16t^4u^{24} + tu^{27} + t^{26}u + 14t^{23}u^4 + 41t^{20}u^7 + 44t^{17}u^{10} + 48t^{14}u^{13} + 46t^{11}u^{16} + 42t^8u^{19} + 24t^5u^{22} + 3t^2u^{25} + 6t^{24}u^2 + 27t^{21}u^5 + 42t^{18}u^8 + 46t^{15}u^{11} + 46t^{12}u^{14} + 46t^9u^{17} + 32t^6u^{20} + 13t^3u^{23} + u^{26} + 11t^{22}u^3 + 34t^{19}u^6 + 43t^{16}u^9 + 47t^{13}u^{12} + 47t^{10}u^{15} + 38t^7u^{18} + 18t^4u^{21} + 2tu^{24} + 3t^{23}u + 20t^{20}u^4 + 39t^{17}u^7 + 46t^{14}u^{10} + 47t^{11}u^{13} + 41t^8u^{16} + 27t^5u^{19} + 8t^2u^{22} + 7t^{21}u^2 + 27t^{18}u^5 + 42t^{15}u^8 + 46t^{12}u^{11} + 47t^9u^{14} + 32t^6u^{17} + 13t^3u^{20} + t^{22} + 13t^{19}u^3 + 34t^{16}u^6 + 44t^{13}u^9 + 47t^{10}u^{12} + 38t^7u^{15} + 19t^4u^{18} + 5tu^{21} + 3t^{20}u + 20t^{17}u^4 + 36t^{14}u^7 + 47t^{11}u^{10} + 43t^8u^{13} + 27t^5u^{16} + 8t^2u^{19} + 8t^{18}u^2 + 27t^{15}u^5 + 42t^{12}u^8 + 45t^9u^{11} + 34t^6u^{14} + 12t^3u^{17} + 2u^{20} + t^{19} + 14t^{16}u^3 + 32t^{13}u^6 + 46t^{10}u^9 + 38t^7u^{12} + 19t^4u^{15} + 4tu^{18} + 4t^{17}u + 19t^{14}u^4 + 38t^{11}u^7 + 44t^8u^{10} + 27t^5u^{13} + 8t^2u^{16} + 8t^{15}u^2 + 27t^{12}u^5 + 40t^9u^8 + 34t^6u^{11} + 12t^3u^{14} + 2u^{17} + t^{16} + 13t^{13}u^3 + 32t^{10}u^6 + 40t^7u^9 + 19t^4u^{12} + 4tu^{15} + 5t^{14}u + 19t^{11}u^4 + 35t^8u^7 + 27t^5u^{10} + 7t^2u^{13} + 8t^{12}u^2 + 27t^9u^5 + 32t^6u^8 + 13t^3u^{11} + u^{14} + 2t^{13} + 12t^{10}u^3 + 28t^7u^6 + 18t^4u^9 + 4tu^{12} + 4t^{11}u + 18t^8u^4 + 24t^5u^7 + 7t^2u^{10} + 7t^9u^2 + 18t^6u^5 + 12t^3u^8 + u^{11} + 2t^{10} + 11t^7u^3 + 16t^4u^6 + 3tu^9 + 3t^8u + 9t^5u^4 + 6t^2u^7 + 6t^6u^2 + 9t^3u^5 + u^8 + 4t^4u^3 + 2tu^6 + 3t^5u + 5t^2u^4 + t^3u^2 + t^4 + 2tu^3 + u^2) (u^2 + 1) (u^4 - u^2 + 1) (t^2 + 1) (t^4 - t^2 + 1)$$

$$M_K(t, u)_{11} = M_K(u, t)_{10}$$

$$M_K(t, u)_{12} = (t^{18}u^{15} + t^{15}u^{18} + t^{16}u^{16} + 2t^{17}u^{14} + 2t^{14}u^{17} + 2t^{15}u^{15} + 5t^{16}u^{13} + 5t^{13}u^{16} + 2t^{17}u^{11} + 4t^{14}u^{14} + 2t^{11}u^{17} + t^{18}u^9 + 8t^{15}u^{12} + 8t^{12}u^{15} + t^9u^{18} + 3t^{16}u^{10} + 6t^{13}u^{13} + 3t^{10}u^{16} + 3t^{17}u^8 + 12t^{14}u^{11} + 12t^{11}u^{14} + 3t^8u^{17} + 5t^{15}u^9 + 9t^{12}u^{12} + 5t^9u^{15} + 6t^{16}u^7 + 15t^{13}u^{10} + 15t^{10}u^{13} + 6t^7u^{16} + t^{17}u^5 + 6t^{14}u^8 + 8t^{11}u^{11} + 6t^8u^{14} + t^5u^{17} + t^{18}u^3 + 8t^{15}u^6 + 17t^{12}u^9 + 17t^9u^{12} + 8t^6u^{15} + t^3u^{18} + 2t^{16}u^4 + 8t^{13}u^7 + 9t^{10}u^{10} + 8t^7u^{13} + 2t^4u^{16} + t^{17}u^2 + 10t^{14}u^5 + 18t^{11}u^8 + 18t^8u^{11} + 10t^5u^{14} + t^2u^{17} + 2t^{15}u^3 + 9t^{12}u^6 + 8t^9u^9 + 9t^6u^{12} + 2t^3u^{15} + t^{16}u + 10t^{13}u^4 + 18t^{10}u^7 + 18t^7u^{10} + 10t^4u^{13} + tu^{16} + 2t^{14}u^2 + 8t^{11}u^5 + 9t^8u^8 + 8t^5u^{11} + 2t^2u^{14} + t^{15} + 8t^{12}u^3 + 17t^9u^6 + 17t^6u^9 + 8t^3u^{12} + u^{15} + t^{13}u + 6t^{10}u^4 + 8t^7u^7 + 6t^4u^{10} + tu^{13} + 6t^{11}u^2 + 15t^8u^5 + 15t^5u^8 + 6t^2u^{11} + 5t^9u^3 + 9t^6u^6 + 5t^3u^9 + 3t^{10}u + 12t^7u^4 + 12t^4u^7 + 3tu^{10} + 3t^8u^2 + 6t^5u^5 + 3t^2u^8 + t^9 + 8t^6u^3 + 8t^3u^6 + u^9 + 2t^7u + 4t^4u^4 + 2tu^7 + 5t^5u^2 + 5t^2u^5 + 2t^3u^3 + 2t^4u + 2tu^4 + t^2u^2 + t^3 + u^3) (u^6 + u^5 + u^4 + u^3 + u^2 + u + 1) (u^{12} - u^{11} + u^9 - u^8 + u^6 - u^4 + u^3 - u + 1) (t^6 + t^5 + t^4 + t^3 + t^2 + t + 1) (t^{12} - t^{11} + t^9 - t^8 + t^6 - t^4 + t^3 - t + 1)$$

$$M_K(t, u)_{13} = (t^{17}u^{16} + t^{15}u^{17} + 3t^{16}u^{15} + t^{13}u^{18} + t^{17}u^{13} + 2t^{14}u^{16} + 2t^{18}u^{11} + 6t^{15}u^{14} + 3t^{12}u^{17} + 3t^{16}u^{12} + 4t^{13}u^{15} + 3t^{17}u^{10} + 10t^{14}u^{13} + 6t^{11}u^{16} + 4t^{15}u^{11} + 6t^{12}u^{14} + t^9u^{17} + 6t^{16}u^9 + 14t^{13}u^{12} + 9t^{10}u^{15} + 2t^7u^{18} + 2t^{17}u^7 + 6t^{14}u^{10} + 8t^{11}u^{13} + 3t^8u^{16} + t^{18}u^5 + 9t^{15}u^8 + 16t^{12}u^{11} + 12t^9u^{14} + 3t^6u^{17} +$$

$$\begin{aligned}
& 3t^{16}u^6 + 7t^{13}u^9 + 9t^{10}u^{12} + 4t^7u^{15} + 2t^{17}u^4 + 12t^{14}u^7 + 18t^{11}u^{10} + 15t^8u^{13} + 5t^5u^{16} + 4t^{15}u^5 + 9t^{12}u^8 + \\
& 10t^9u^{11} + 6t^6u^{14} + t^3u^{17} + 3t^{16}u^3 + 14t^{13}u^6 + 18t^{10}u^9 + 16t^7u^{12} + 6t^4u^{15} + 4t^{14}u^4 + 8t^{11}u^7 + 9t^8u^{10} + \\
& 6t^5u^{13} + t^2u^{16} + 3t^{15}u^2 + 14t^{12}u^5 + 18t^9u^8 + 16t^6u^{11} + 6t^3u^{14} + 4t^{13}u^3 + 9t^{10}u^6 + 10t^7u^9 + 6t^4u^{12} + \\
& tu^{15} + 2t^{14}u + 12t^{11}u^4 + 18t^8u^7 + 15t^5u^{10} + 5t^2u^{13} + 3t^{12}u^2 + 7t^9u^5 + 9t^6u^8 + 4t^3u^{11} + t^{13} + 9t^{10}u^3 + \\
& 16t^7u^6 + 12t^4u^9 + 3tu^{12} + 2t^{11}u + 6t^8u^4 + 8t^5u^7 + 3t^2u^{10} + 6t^9u^2 + 14t^6u^5 + 9t^3u^8 + 2u^{11} + 4t^7u^3 + \\
& 6t^4u^6 + tu^9 + 3t^8u + 10t^5u^4 + 6t^2u^7 + 3t^6u^2 + 4t^3u^5 + 2t^7 + 6t^4u^3 + 3tu^6 + t^5u + 2t^2u^4 + 3t^3u^2 + u^5 + \\
& tu^3 + t^2u)(u^6 + u^5 + u^4 + u^3 + u^2 + u + 1)(u^{12} - u^{11} + u^9 - u^8 + u^6 - u^4 + u^3 - u + 1) \\
& (t^6 + t^5 + t^4 + t^3 + t^2 + t + 1)(t^{12} - t^{11} + t^9 - t^8 + t^6 - t^4 + t^3 - t + 1)
\end{aligned}$$

$$M_K(t, u)_{14} = M_K(u, t)_{13}$$

$$\begin{aligned}
M_K(t, u)_{15} = & (t^{23}u^{23} + 2t^{22}u^{22} + t^{24}u^{18} + 5t^{21}u^{21} + t^{18}u^{24} + 2t^{22}u^{19} + 2t^{19}u^{22} + 2t^{23}u^{17} + 7t^{20}u^{20} + \\
& 2t^{17}u^{23} + t^{21}u^{18} + t^{18}u^{21} + 3t^{22}u^{16} + 5t^{19}u^{19} + 3t^{16}u^{22} + t^{23}u^{14} + 2t^{20}u^{17} + 2t^{17}u^{20} + t^{14}u^{23} + t^{24}u^{12} + \\
& 5t^{21}u^{15} + 7t^{18}u^{18} + 5t^{15}u^{21} + t^{12}u^{24} + 2t^{22}u^{13} + 3t^{19}u^{16} + 3t^{16}u^{19} + 2t^{13}u^{22} + 2t^{23}u^{11} + 4t^{20}u^{14} + \\
& 5t^{17}u^{17} + 4t^{14}u^{20} + 2t^{11}u^{23} + 2t^{21}u^{12} + 2t^{18}u^{15} + 2t^{15}u^{18} + 2t^{12}u^{21} + 3t^{22}u^{10} + 5t^{19}u^{13} + 5t^{16}u^{16} + \\
& 5t^{13}u^{19} + 3t^{10}u^{22} + t^{23}u^8 + 3t^{20}u^{11} + 4t^{17}u^{14} + 4t^{14}u^{17} + 3t^{11}u^{20} + t^8u^{23} + t^{24}u^6 + 4t^{21}u^9 + 5t^{18}u^{12} + \\
& 5t^{15}u^{15} + 5t^{12}u^{18} + 4t^9u^{21} + t^6u^{24} + 3t^{22}u^7 + 3t^{19}u^{10} + 2t^{16}u^{13} + 2t^{13}u^{16} + 3t^{10}u^{19} + 3t^7u^{22} + t^{23}u^5 + \\
& 4t^{20}u^8 + 4t^{17}u^{11} + 5t^{14}u^{14} + 4t^{11}u^{17} + 4t^8u^{20} + t^5u^{23} + 3t^{21}u^6 + 4t^{18}u^9 + 3t^{15}u^{12} + 3t^{12}u^{15} + 4t^9u^{18} + \\
& 3t^6u^{21} + 2t^{22}u^4 + 3t^{19}u^7 + 5t^{16}u^{10} + 7t^{13}u^{13} + 5t^{10}u^{16} + 3t^7u^{19} + 2t^4u^{22} + t^{23}u^2 + 5t^{20}u^5 + 4t^{17}u^8 + \\
& 2t^{14}u^{11} + 2t^{11}u^{14} + 4t^8u^{17} + 5t^5u^{20} + t^2u^{23} + 4t^{21}u^3 + 3t^{18}u^6 + 4t^{15}u^9 + 5t^{12}u^{12} + 4t^9u^{15} + 3t^6u^{18} + \\
& 4t^3u^{21} + t^{22}u + 5t^{19}u^4 + 4t^{16}u^7 + 2t^{13}u^{10} + 2t^{10}u^{13} + 4t^7u^{16} + 5t^4u^{19} + tu^{22} + 2t^{20}u^2 + 3t^{17}u^5 + 5t^{14}u^8 + \\
& 7t^{11}u^{11} + 5t^8u^{14} + 3t^5u^{17} + 2t^2u^{20} + 3t^{18}u^3 + 4t^{15}u^6 + 3t^{12}u^9 + 3t^9u^{12} + 4t^6u^{15} + 3t^3u^{18} + t^{19}u + 4t^{16}u^4 + \\
& 4t^{13}u^7 + 5t^{10}u^{10} + 4t^7u^{13} + 4t^4u^{16} + tu^{19} + 3t^{17}u^2 + 3t^{14}u^5 + 2t^{11}u^8 + 2t^8u^{11} + 3t^5u^{14} + 3t^2u^{17} + t^{18} + \\
& 4t^{15}u^3 + 5t^{12}u^6 + 5t^9u^9 + 5t^6u^{12} + 4t^3u^{15} + u^{18} + t^{16}u + 3t^{13}u^4 + 4t^{10}u^7 + 4t^7u^{10} + 3t^4u^{13} + tu^{16} + \\
& 3t^{14}u^2 + 5t^{11}u^5 + 5t^8u^8 + 5t^5u^{11} + 3t^2u^{14} + 2t^{12}u^3 + 2t^9u^6 + 2t^6u^9 + 2t^3u^{12} + 2t^{13}u + 4t^{10}u^4 + 5t^7u^7 + \\
& 4t^4u^{10} + 2tu^{13} + 2t^{11}u^2 + 3t^8u^5 + 3t^5u^8 + 2t^2u^{11} + t^{12} + 5t^9u^3 + 7t^6u^6 + 5t^3u^9 + u^{12} + t^{10}u + 2t^7u^4 + \\
& 2t^4u^7 + tu^{10} + 3t^8u^2 + 5t^5u^5 + 3t^2u^8 + t^6u^3 + t^3u^6 + 2t^7u + 7t^4u^4 + 2tu^7 + 2t^5u^2 + 2t^2u^5 + t^6 + 5t^3u^3 + \\
& u^6 + 2t^2u^2 + tu)(u^2 + 1)(u^4 - u^2 + 1)(u + 1)^2(u^2 - u + 1)^2(t^2 + 1)(t^4 - t^2 + 1)(t + 1)^2(t^2 - t + 1)^2
\end{aligned}$$

$$\begin{aligned}
M_K(t, u)_{16} = & (t^{23}u^{22} + t^{24}u^{20} + t^{21}u^{23} + 3t^{22}u^{21} + t^{19}u^{24} + t^{23}u^{19} + 2t^{20}u^{22} + 3t^{21}u^{20} + 2t^{18}u^{23} + 2t^{22}u^{18} + \\
& 2t^{19}u^{21} + 2t^{23}u^{16} + 5t^{20}u^{19} + 3t^{17}u^{22} + 4t^{21}u^{17} + 3t^{18}u^{20} + t^{15}u^{23} + 3t^{22}u^{15} + 5t^{19}u^{18} + 4t^{16}u^{21} + t^{13}u^{24} + \\
& 2t^{20}u^{16} + 3t^{17}u^{19} + 3t^{14}u^{22} + t^{24}u^{11} + 5t^{21}u^{14} + 4t^{18}u^{17} + 4t^{15}u^{20} + t^{12}u^{23} + 2t^{22}u^{12} + 3t^{19}u^{15} + 4t^{16}u^{18} + \\
& 3t^{13}u^{21} + 2t^{23}u^{10} + 7t^{20}u^{13} + 5t^{17}u^{16} + 3t^{14}u^{19} + 2t^{11}u^{22} + t^{21}u^{11} + 2t^{18}u^{14} + 4t^{15}u^{17} + 5t^{12}u^{20} + 2t^9u^{23} + \\
& 3t^{22}u^9 + 5t^{19}u^{12} + 4t^{16}u^{15} + 3t^{13}u^{18} + 4t^{10}u^{21} + t^{23}u^7 + 2t^{20}u^{10} + 2t^{17}u^{13} + 4t^{14}u^{16} + 5t^{11}u^{19} + 3t^8u^{22} + \\
& t^{24}u^5 + 5t^{21}u^8 + 7t^{18}u^{11} + 5t^{15}u^{14} + 3t^{12}u^{17} + 2t^9u^{20} + 2t^{22}u^6 + 3t^{19}u^9 + 3t^{16}u^{12} + 4t^{13}u^{15} + 4t^{10}u^{18} + \\
& 5t^7u^{21} + t^4u^{24} + 2t^{23}u^4 + 4t^{20}u^7 + 5t^{17}u^{10} + 4t^{14}u^{13} + 4t^{11}u^{16} + 3t^8u^{19} + 2t^5u^{22} + 2t^{21}u^5 + 2t^{18}u^8 + 2t^{15}u^{11} + \\
& 3t^{12}u^{14} + 5t^9u^{17} + 7t^6u^{20} + 2t^3u^{23} + 3t^{22}u^3 + 5t^{19}u^6 + 5t^{16}u^9 + 5t^{13}u^{12} + 4t^{10}u^{15} + 2t^7u^{18} + t^4u^{21} + 3t^{20}u^4 + \\
& 4t^{17}u^7 + 4t^{14}u^{10} + 3t^{11}u^{13} + 4t^8u^{16} + 5t^5u^{19} + 2t^2u^{22} + 3t^{21}u^2 + 5t^{18}u^5 + 5t^{15}u^8 + 5t^{12}u^{11} + 4t^9u^{14} + 2t^6u^{17} + \\
& t^3u^{20} + 2t^{19}u^3 + 2t^{16}u^6 + 2t^{13}u^9 + 3t^{10}u^{12} + 5t^7u^{15} + 7t^4u^{18} + 2tu^{21} + 2t^{20}u + 4t^{17}u^4 + 5t^{14}u^7 + 4t^{11}u^{10} + \\
& 4t^8u^{13} + 3t^5u^{16} + 2t^2u^{19} + 2t^{18}u^2 + 3t^{15}u^5 + 3t^{12}u^8 + 4t^9u^{11} + 4t^6u^{14} + 5t^3u^{17} + u^{20} + t^{19} + 5t^{16}u^3 + 7t^{13}u^6 + \\
& 5t^{10}u^9 + 3t^7u^{12} + 2t^4u^{15} + t^{17}u + 2t^{14}u^4 + 2t^{11}u^7 + 4t^8u^{10} + 5t^5u^{13} + 3t^2u^{16} + 3t^{15}u^2 + 5t^{12}u^5 + 4t^9u^8 + \\
& 3t^6u^{11} + 4t^3u^{14} + t^{13}u^3 + 2t^{10}u^6 + 4t^7u^9 + 5t^4u^{12} + 2tu^{15} + 2t^{14}u + 7t^{11}u^4 + 5t^8u^7 + 3t^5u^{10} + 2t^2u^{13} + 2t^{12}u^2 + \\
& 3t^9u^5 + 4t^6u^8 + 3t^3u^{11} + t^{13} + 5t^{10}u^3 + 4t^7u^6 + 4t^4u^9 + tu^{12} + 2t^8u^4 + 3t^5u^7 + 3t^2u^{10} + 3t^9u^2 + 5t^6u^5 + \\
& 4t^3u^8 + u^{11} + 4t^7u^3 + 3t^4u^6 + tu^9 + 2t^8u + 5t^5u^4 + 3t^2u^7 + 2t^6u^2 + 2t^3u^5 + 3t^4u^3 + 2tu^6 + t^5u + 2t^2u^4 + 3t^3u^2 + \\
& u^5 + t^4 + tu^3 + t^2u)(u^2 + 1)(u^4 - u^2 + 1)(u + 1)^2(u^2 - u + 1)^2(t^2 + 1)(t^4 - t^2 + 1)(t + 1)^2(t^2 - t + 1)^2
\end{aligned}$$

$$M_K(t, u)_{17} = M_K(u, t)_{16}$$

The Poincaré series of the invariant ring is

$$\begin{aligned}
P_K(t, 0)_0 = P_K(0, t)_0 = & \frac{-t^{36} - t^{18} - 1}{(t-1)^3(t^2+t+1)^3(t^2+1)(t^4-t^2+1)(t^6+t^5+t^4+t^3+t^2+t+1)(t^{12}-t^{11}+t^9-t^8+t^6-t^4+t^3-t+1)(t+1)^2(t^2-t+1)^2}
\end{aligned}$$

8 Type L

$$D_L(t) = (t-1)^3 (t^2+t+1)^3 (t^2+1) (t^4-t^2+1) (t^4+t^3+t^2+t+1) (t^8-t^7+t^5-t^4+t^3-t+1) (t+1)^2 (t^2-t+1)^2$$

$$\begin{aligned} M_L(t, u)_0 = & t^{30}u^{30} + t^{29}u^{29} + t^{28}u^{28} + t^{27}u^{27} + 2t^{26}u^{26} + t^{28}u^{22} + 3t^{25}u^{25} + t^{22}u^{28} + 2t^{27}u^{21} + 4t^{24}u^{24} + \\ & 2t^{21}u^{27} + t^{25}u^{22} + t^{22}u^{25} + 3t^{26}u^{20} + 5t^{23}u^{23} + 3t^{20}u^{26} - t^{30}u^{15} + t^{27}u^{18} + 2t^{24}u^{21} + 2t^{21}u^{24} + t^{18}u^{27} - \\ & t^{15}u^{30} + t^{28}u^{16} + 4t^{25}u^{19} + 6t^{22}u^{22} + 4t^{19}u^{25} + t^{16}u^{28} + 2t^{26}u^{17} + 4t^{23}u^{20} + 4t^{20}u^{23} + 2t^{17}u^{26} + 2t^{27}u^{15} + \\ & 5t^{24}u^{18} + 7t^{21}u^{21} + 5t^{18}u^{24} + 2t^{15}u^{27} + 3t^{25}u^{16} + 5t^{22}u^{19} + 5t^{19}u^{22} + 3t^{16}u^{25} + t^{29}u^{11} + 3t^{26}u^{14} + 7t^{23}u^{17} + \\ & 9t^{20}u^{20} + 7t^{17}u^{23} + 3t^{14}u^{26} + t^{11}u^{29} + t^{27}u^{12} + 5t^{24}u^{15} + 7t^{21}u^{18} + 7t^{18}u^{21} + 5t^{15}u^{24} + t^{12}u^{27} + 2t^{28}u^{10} + \\ & 4t^{25}u^{13} + 8t^{22}u^{16} + 11t^{19}u^{19} + 8t^{16}u^{22} + 4t^{13}u^{25} + 2t^{10}u^{28} + t^{26}u^{11} + 6t^{23}u^{14} + 8t^{20}u^{17} + 8t^{17}u^{20} + \\ & 6t^{14}u^{23} + t^{11}u^{26} + 2t^{27}u^9 + 5t^{24}u^{12} + 9t^{21}u^{15} + 12t^{18}u^{18} + 9t^{15}u^{21} + 5t^{12}u^{24} + 2t^9u^{27} + 2t^{25}u^{10} + 7t^{22}u^{13} + \\ & 11t^{19}u^{16} + 11t^{16}u^{19} + 7t^{13}u^{22} + 2t^{10}u^{25} + t^{29}u^5 + 3t^{26}u^8 + 6t^{23}u^{11} + 10t^{20}u^{14} + 14t^{17}u^{17} + 10t^{14}u^{20} + \\ & 6t^{11}u^{23} + 3t^8u^{26} + t^5u^{29} + 2t^{24}u^9 + 7t^{21}u^{12} + 12t^{18}u^{15} + 12t^{15}u^{18} + 7t^{12}u^{21} + 2t^9u^{24} + t^8u^4 + 3t^{25}u^7 + \\ & 6t^{22}u^{10} + 11t^{19}u^{13} + 14t^{16}u^{16} + 11t^{13}u^{19} + 6t^{10}u^{22} + 3t^7u^{25} + t^4u^{28} + 2t^{23}u^8 + 7t^{20}u^{11} + 13t^{17}u^{14} + \\ & 13t^{14}u^{17} + 7t^{11}u^{20} + 2t^8u^{23} + t^30 + t^{27}u^3 + 4t^{24}u^6 + 7t^{21}u^9 + 12t^{18}u^{12} + 16t^{15}u^{15} + 12t^{12}u^{18} + 7t^9u^{21} + \\ & 4t^6u^{24} + t^3u^{27} + u^{30} + 2t^{22}u^7 + 7t^{19}u^{10} + 13t^{16}u^{13} + 13t^{13}u^{16} + 7t^{10}u^{19} + 2t^7u^{22} + t^{26}u^2 + 3t^{23}u^5 + 6t^{20}u^8 + \\ & 11t^{17}u^{11} + 14t^{14}u^{14} + 11t^{11}u^{17} + 6t^8u^{20} + 3t^5u^{23} + t^2u^{26} + 2t^{21}u^6 + 7t^{18}u^9 + 12t^{15}u^{12} + 12t^{12}u^{15} + 7t^9u^{18} + \\ & 2t^6u^{21} + t^{25}u + 3t^{22}u^4 + 6t^{19}u^7 + 10t^{16}u^{10} + 14t^{13}u^{13} + 10t^{10}u^{16} + 6t^7u^{19} + 3t^4u^{22} + tu^{25} + 2t^20u^5 + 7t^{17}u^8 + \\ & 11t^{14}u^{11} + 11t^{11}u^{14} + 7t^8u^{17} + 2t^5u^{20} + 2t^{21}u^3 + 5t^{18}u^6 + 9t^{15}u^9 + 12t^{12}u^{12} + 9t^9u^{15} + 5t^6u^{18} + 2t^3u^{21} + \\ & t^{19}u^4 + 6t^{16}u^7 + 8t^{13}u^{10} + 8t^{10}u^{13} + 6t^7u^{16} + t^4u^{19} + 2t^20u^2 + 4t^{17}u^5 + 8t^{14}u^8 + 11t^{11}u^{11} + 8t^8u^{14} + 4t^5u^{17} + \\ & 2t^2u^{20} + t^{18}u^3 + 5t^{15}u^6 + 7t^{12}u^9 + 7t^9u^{12} + 5t^6u^{15} + t^3u^{18} + t^{19}u + 3t^{16}u^4 + 7t^{13}u^7 + 9t^{10}u^{10} + 7t^7u^{13} + \\ & 3t^4u^{16} + tu^{19} + 3t^{14}u^5 + 5t^{11}u^8 + 5t^8u^{11} + 3t^5u^{14} + 2t^{15}u^3 + 5t^{12}u^6 + 7t^9u^9 + 5t^6u^{12} + 2t^3u^{15} + 2t^{13}u^4 + \\ & 4t^{10}u^7 + 4t^7u^{10} + 2t^4u^{13} + t^{14}u^2 + 4t^{11}u^5 + 6t^8u^8 + 4t^5u^{11} + t^2u^{14} - t^{15} + t^{12}u^3 + 2t^9u^6 + 2t^6u^9 + t^3u^{12} - u^{15} + \\ & 3t^{10}u^4 + 5t^7u^7 + 3t^4u^{10} + t^8u^5 + t^5u^8 + 2t^9u^3 + 4t^6u^6 + 2t^3u^9 + t^8u^2 + 3t^5u^5 + t^2u^8 + 2t^4u^4 + t^3u^3 + t^2u^2 + tu + 1 \end{aligned}$$

$$\begin{aligned} M_L(t, u)_1 = & t^{30}u^{25} + t^{27}u^{28} + t^{29}u^{24} + 2t^{26}u^{27} + t^{23}u^{30} + t^{27}u^{25} + 3t^{28}u^{23} + 4t^{25}u^{26} + 2t^{22}u^{29} + t^{29}u^{21} + \\ & 2t^{26}u^{24} + 2t^{23}u^{27} + 4t^{27}u^{22} + 5t^{24}u^{25} + 3t^{21}u^{28} + 2t^{28}u^{20} + 5t^{25}u^{23} + 4t^{22}u^{26} + t^{19}u^{29} + 2t^{29}u^{18} + 7t^{26}u^{21} + \\ & 8t^{23}u^{24} + 5t^{20}u^{27} + t^{17}u^{30} + 4t^{27}u^{19} + 8t^{24}u^{22} + 7t^{21}u^{25} + 3t^{18}u^{28} + 4t^{28}u^{17} + 10t^{25}u^{20} + 11t^{22}u^{23} + 8t^{19}u^{26} + \\ & 2t^{16}u^{29} + t^{29}u^{15} + 7t^{26}u^{18} + 11t^{23}u^{21} + 10t^{20}u^{24} + 5t^{17}u^{27} + t^{30}u^{13} + 6t^{27}u^{16} + 15t^{24}u^{19} + 16t^{21}u^{22} + \\ & 12t^{18}u^{25} + 4t^{15}u^{28} + 3t^{28}u^{14} + 11t^{25}u^{17} + 15t^{22}u^{20} + 14t^{19}u^{23} + 8t^{16}u^{26} + 2t^{13}u^{29} + 2t^{29}u^{12} + 9t^{26}u^{15} + \\ & 18t^{23}u^{18} + 20t^{20}u^{21} + 16t^{17}u^{24} + 6t^{14}u^{27} + 5t^{27}u^{13} + 16t^{24}u^{16} + 20t^{21}u^{19} + 19t^{18}u^{22} + 11t^{15}u^{25} + 3t^{12}u^{28} + \\ & 3t^{28}u^{11} + 12t^{25}u^{14} + 22t^{22}u^{17} + 25t^{19}u^{20} + 19t^{16}u^{23} + 9t^{13}u^{26} + t^{10}u^{29} + t^{29}u^9 + 7t^{26}u^{12} + 19t^{23}u^{15} + \\ & 26t^{20}u^{18} + 24t^{17}u^{21} + 16t^{14}u^{24} + 4t^{11}u^{27} + t^{30}u^7 + 5t^{27}u^{10} + 16t^{24}u^{13} + 26t^{21}u^{16} + 30t^{18}u^{19} + 23t^{15}u^{22} + \\ & 12t^{12}u^{25} + 3t^9u^{28} + t^{28}u^8 + 8t^{25}u^{11} + 22t^{22}u^{14} + 31t^{19}u^{17} + 29t^{16}u^{20} + 17t^{13}u^{23} + 5t^{10}u^{26} + t^{29}u^6 + 7t^{26}u^9 + \\ & 18t^{23}u^{12} + 31t^{20}u^{15} + 34t^{17}u^{18} + 26t^{14}u^{21} + 15t^{11}u^{24} + 4t^8u^{27} + t^5u^{30} + 2t^{27}u^7 + 10t^{24}u^{10} + 24t^{21}u^{13} + \\ & 35t^{18}u^{16} + 33t^{15}u^{19} + 19t^{12}u^{22} + 7t^9u^{25} + 2t^{28}u^5 + 8t^{25}u^8 + 20t^{22}u^{11} + 34t^{19}u^{14} + 38t^{16}u^{17} + 29t^{13}u^{20} + \\ & 16t^{10}u^{23} + 5t^7u^{26} + t^4u^{29} + 2t^{26}u^6 + 11t^{23}u^9 + 26t^{20}u^{12} + 38t^{17}u^{15} + 35t^{14}u^{18} + 20t^{11}u^{21} + 8t^8u^{24} + t^5u^{27} + \\ & 2t^{27}u^4 + 8t^{24}u^7 + 20t^{21}u^{10} + 34t^{18}u^{13} + 41t^{15}u^{16} + 30t^{12}u^{19} + 16t^9u^{22} + 5t^6u^{25} + t^3u^{28} + 3t^{25}u^5 + 12t^{22}u^8 + \\ & 27t^{19}u^{11} + 40t^{16}u^{14} + 35t^{13}u^{17} + 21t^{10}u^{20} + 9t^7u^{23} + t^4u^{26} + 2t^{26}u^3 + 8t^{23}u^6 + 20t^{20}u^9 + 34t^{17}u^{12} + \\ & 41t^{14}u^{15} + 30t^{11}u^{18} + 16t^8u^{21} + 5t^5u^{24} + t^2u^{27} + 2t^{24}u^4 + 11t^{21}u^7 + 26t^{18}u^{10} + 38t^{15}u^{13} + 35t^{12}u^{16} + \\ & 20t^9u^{19} + 8t^6u^{22} + t^3u^{25} + 2t^{25}u^2 + 8t^{22}u^5 + 20t^{19}u^8 + 34t^{16}u^{11} + 38t^{13}u^{14} + 29t^{10}u^{17} + 16t^7u^{20} + 5t^4u^{23} + \\ & tu^{26} + 2t^{23}u^3 + 10t^{20}u^6 + 24t^{17}u^9 + 35t^{14}u^{12} + 33t^{11}u^{15} + 19t^8u^{18} + 7t^5u^{21} + t^{24}u + 7t^{21}u^4 + 18t^{18}u^7 + \\ & 31t^{15}u^{10} + 34t^{12}u^{13} + 26t^9u^{16} + 15t^6u^{19} + 4t^3u^{22} + u^{25} + t^{22}u^2 + 8t^{19}u^5 + 22t^{16}u^8 + 31t^{13}u^{11} + 29t^{10}u^{14} + \\ & 17t^7u^{17} + 5t^4u^{20} + t^{23} + 5t^{20}u^3 + 16t^{17}u^6 + 26t^{14}u^9 + 30t^{11}u^{12} + 23t^8u^{15} + 12t^5u^{18} + 3t^2u^{21} + t^{21}u + 7t^{18}u^4 + \\ & 19t^{15}u^7 + 26t^{12}u^{10} + 24t^9u^{13} + 16t^6u^{16} + 4t^3u^{19} + 3t^{19}u^2 + 12t^{16}u^5 + 22t^{13}u^8 + 25t^{10}u^{11} + 19t^7u^{14} + \\ & 9t^4u^{17} + tu^{20} + 5t^{17}u^3 + 16t^{14}u^6 + 20t^{11}u^9 + 19t^8u^{12} + 11t^5u^{15} + 3t^2u^{18} + 2t^{18}u + 9t^{15}u^4 + 18t^{12}u^7 + \\ & 20t^9u^{10} + 16t^6u^{13} + 6t^3u^{16} + 3t^{16}u^2 + 11t^{13}u^5 + 15t^{10}u^8 + 14t^7u^{11} + 8t^4u^{14} + 2tu^{17} + t^{17} + 6t^{14}u^3 + 15t^{11}u^6 + \\ & 16t^8u^9 + 12t^5u^{12} + 4t^2u^{15} + t^{15}u + 7t^{12}u^4 + 11t^9u^7 + 10t^6u^{10} + 5t^3u^{13} + 4t^{13}u^2 + 10t^{10}u^5 + 11t^7u^8 + 8t^4u^{11} + \\ & 2tu^{14} + 4t^{11}u^3 + 8t^8u^6 + 7t^5u^9 + 3t^2u^{12} + 2t^{12}u + 7t^9u^4 + 8t^6u^7 + 5t^3u^{10} + u^{13} + 2t^{10}u^2 + 5t^7u^5 + 4t^4u^8 + \\ & tu^{11} + 4t^8u^3 + 5t^5u^6 + 3t^2u^9 + t^9u + 2t^6u^4 + 2t^3u^7 + 3t^7u^2 + 4t^4u^5 + 2tu^8 + t^5u^3 + t^6u + 2t^3u^4 + u^7 + t^5 + t^2u^3 \end{aligned}$$

$$M_L(t, u)_2 = t^{29}u^{30} + t^{28}u^{29} + t^{30}u^{25} + t^{27}u^{28} + t^{25}u^{29} + t^{29}u^{24} + 2t^{26}u^{27} + t^{27}u^{25} + t^{24}u^{28} + 2t^{28}u^{23} + 4t^{25}u^{26} + t^{22}u^{29} + t^{29}u^{21} + 2t^{26}u^{24} + 2t^{23}u^{27} + t^{30}u^{19} + 4t^{27}u^{22} + 6t^{24}u^{25} + 3t^{21}u^{28} + 2t^{28}u^{20} + 4t^{25}u^{23} +$$

$$\begin{aligned}
& 4t^{22}u^{26} + t^{19}u^{29} + t^{29}u^{18} + 7t^{26}u^{21} + 9t^{23}u^{24} + 5t^{20}u^{27} + 4t^{27}u^{19} + 7t^{24}u^{22} + 7t^{21}u^{25} + 2t^{18}u^{28} + 3t^{28}u^{17} + \\
& 10t^{25}u^{20} + 12t^{22}u^{23} + 8t^{19}u^{26} + t^{16}u^{29} + t^{29}u^{15} + 7t^{26}u^{18} + 11t^{23}u^{21} + 11t^{20}u^{24} + 5t^{17}u^{27} + 6t^{27}u^{16} + \\
& 14t^{24}u^{19} + 16t^{21}u^{22} + 11t^{18}u^{25} + 4t^{15}u^{28} + 3t^{28}u^{14} + 10t^{25}u^{17} + 15t^{22}u^{20} + 15t^{19}u^{23} + 8t^{16}u^{26} + t^{29}u^{12} + \\
& 9t^{26}u^{15} + 18t^{23}u^{18} + 20t^{20}u^{21} + 15t^{17}u^{24} + 6t^{14}u^{27} + t^{11}u^{30} + 5t^{27}u^{13} + 15t^{24}u^{16} + 20t^{21}u^{19} + 20t^{18}u^{22} + \\
& 11t^{15}u^{25} + 2t^{12}u^{28} + 4t^{28}u^{11} + 12t^{25}u^{14} + 23t^{22}u^{17} + 26t^{19}u^{20} + 20t^{16}u^{23} + 9t^{13}u^{26} + 2t^{10}u^{29} + t^{29}u^9 + \\
& 7t^{26}u^{12} + 19t^{23}u^{15} + 25t^{20}u^{18} + 24t^{17}u^{21} + 15t^{14}u^{24} + 4t^{11}u^{27} + 5t^{27}u^{10} + 15t^{24}u^{13} + 26t^{21}u^{16} + 30t^{18}u^{19} + \\
& 23t^{15}u^{22} + 11t^{12}u^{25} + 3t^9u^{28} + t^{28}u^8 + 9t^{25}u^{11} + 22t^{22}u^{14} + 30t^{19}u^{17} + 29t^{16}u^{20} + 18t^{13}u^{23} + 5t^{10}u^{26} + \\
& t^{29}u^6 + 7t^{26}u^9 + 18t^{23}u^{12} + 31t^{20}u^{15} + 36t^{17}u^{18} + 26t^{14}u^{21} + 14t^{11}u^{24} + 4t^8u^{27} + t^5u^{30} + 2t^{27}u^7 + \\
& 11t^{24}u^{10} + 24t^{21}u^{13} + 36t^{18}u^{16} + 33t^{15}u^{19} + 20t^{12}u^{22} + 7t^9u^{25} + t^6u^{28} + 2t^{28}u^5 + 8t^{25}u^8 + 19t^{22}u^{11} + \\
& 33t^{19}u^{14} + 39t^{16}u^{17} + 28t^{13}u^{20} + 15t^{10}u^{23} + 5t^7u^{26} + t^4u^{29} + 2t^{26}u^6 + 11t^{23}u^9 + 25t^{20}u^{12} + 38t^{17}u^{15} + \\
& 36t^{14}u^{18} + 20t^{11}u^{21} + 7t^8u^{24} + t^5u^{27} + t^3u + 2t^{27}u^4 + 9t^{24}u^7 + 20t^{21}u^{10} + 36t^{18}u^{13} + 41t^{15}u^{16} + 30t^{12}u^{19} + \\
& 16t^9u^{22} + 6t^6u^{25} + t^3u^{28} + 3t^{25}u^5 + 12t^{22}u^8 + 26t^{19}u^{11} + 40t^{16}u^{14} + 38t^{13}u^{17} + 21t^{10}u^{20} + 8t^7u^{23} + \\
& t^4u^{26} + tu^{29} + t^{29} + 2t^{26}u^3 + 9t^{23}u^6 + 20t^{20}u^9 + 36t^{17}u^{12} + 41t^{14}u^{15} + 30t^{11}u^{18} + 16t^8u^{21} + 6t^5u^{24} + \\
& t^2u^{27} + 2t^{24}u^4 + 11t^{21}u^7 + 25t^{18}u^{10} + 38t^{15}u^{13} + 36t^{12}u^{16} + 20t^9u^{19} + 7t^6u^{22} + t^3u^{25} + 2t^{25}u^2 + 8t^{22}u^5 + \\
& 19t^{19}u^8 + 33t^{16}u^{11} + 39t^{13}u^{14} + 28t^{10}u^{17} + 15t^7u^{20} + 5t^4u^{23} + tu^{26} + 2t^{23}u^3 + 11t^{20}u^6 + 24t^{17}u^9 + \\
& 36t^{14}u^{12} + 33t^{11}u^{15} + 20t^8u^{18} + 7t^5u^{21} + t^2u^{24} + t^{24}u + 7t^{21}u^4 + 18t^{18}u^7 + 31t^{15}u^{10} + 36t^{12}u^{13} + 26t^9u^{16} + \\
& 14t^6u^{19} + 4t^3u^{22} + u^{25} + t^{22}u^2 + 9t^{19}u^5 + 22t^{16}u^8 + 30t^{13}u^{11} + 29t^{10}u^{14} + 18t^7u^{17} + 5t^4u^{20} + 5t^{20}u^3 + \\
& 15t^{17}u^6 + 26t^{14}u^9 + 30t^{11}u^{12} + 23t^8u^{15} + 11t^5u^{18} + 3t^2u^{21} + t^{21}u + 7t^{18}u^4 + 19t^{15}u^7 + 25t^{12}u^{10} + \\
& 24t^9u^{13} + 15t^6u^{16} + 4t^3u^{19} + 4t^{19}u^2 + 12t^{16}u^5 + 23t^{13}u^8 + 26t^{10}u^{11} + 20t^7u^{14} + 9t^4u^{17} + 2tu^{20} + \\
& 5t^{17}u^3 + 15t^{14}u^6 + 20t^{11}u^9 + 20t^8u^{12} + 11t^5u^{15} + 2t^2u^{18} + t^{18}u + 9t^{15}u^4 + 18t^{12}u^7 + 20t^9u^{10} + 15t^6u^{13} + \\
& 6t^3u^{16} + u^{19} + 3t^{16}u^2 + 10t^{13}u^5 + 15t^{10}u^8 + 15t^7u^{11} + 8t^4u^{14} + 6t^{14}u^3 + 14t^{11}u^6 + 16t^8u^9 + 11t^5u^{12} + \\
& 4t^2u^{15} + t^{15}u + 7t^{12}u^4 + 11t^9u^7 + 11t^6u^{10} + 5t^3u^{13} + 3t^{13}u^2 + 10t^{10}u^5 + 12t^7u^8 + 8t^4u^{11} + tu^{14} + 4t^{11}u^3 + \\
& 7t^8u^6 + 7t^5u^9 + 2t^2u^{12} + t^{12}u + 7t^9u^4 + 9t^6u^7 + 5t^3u^{10} + 2t^{10}u^2 + 4t^7u^5 + 4t^4u^8 + tu^{11} + t^{11} + 4t^8u^3 + \\
& 6t^5u^6 + 3t^2u^9 + t^9u + 2t^6u^4 + 2t^3u^7 + 2t^7u^2 + 4t^4u^5 + tu^8 + t^5u^3 + t^2u^6 + t^6u + 2t^3u^4 + tu^5 + t^5 + t^2u^3 + tu^2 + u
\end{aligned}$$

$$M_L(t, u)_3 = M_L(u, t)_2$$

$$\begin{aligned}
M_L(t, u)_4 = & t^{28}u^{27} + t^{25}u^{30} + t^{30}u^{23} + 2t^{27}u^{26} + t^{24}u^{29} + t^{25}u^{27} + 2t^{29}u^{22} + 4t^{26}u^{25} + 3t^{23}u^{28} + 2t^{27}u^{23} + \\
& 2t^{24}u^{26} + t^{21}u^{29} + 3t^{28}u^{21} + 5t^{25}u^{24} + 4t^{22}u^{27} + t^{29}u^{19} + 4t^{26}u^{22} + 5t^{23}u^{25} + 2t^{20}u^{28} + t^{30}u^{17} + 5t^{27}u^{20} + \\
& 8t^{24}u^{23} + 7t^{21}u^{26} + 2t^{18}u^{29} + 3t^{28}u^{18} + 7t^{25}u^{21} + 8t^{22}u^{24} + 4t^{19}u^{27} + 2t^{29}u^{16} + 8t^{26}u^{19} + 11t^{23}u^{22} + \\
& 10t^{20}u^{25} + 4t^{17}u^{28} + 5t^{27}u^{17} + 10t^{24}u^{20} + 11t^{21}u^{23} + 7t^{18}u^{26} + t^{15}u^{29} + 4t^{28}u^{15} + 12t^{25}u^{18} + 16t^{22}u^{21} + \\
& 15t^{19}u^{24} + 6t^{16}u^{27} + t^{13}u^{30} + 2t^{29}u^{13} + 8t^{26}u^{16} + 14t^{23}u^{19} + 15t^{20}u^{22} + 11t^{17}u^{25} + 3t^{14}u^{28} + 6t^{27}u^{14} + \\
& 16t^{24}u^{17} + 20t^{21}u^{20} + 18t^{18}u^{23} + 9t^{15}u^{26} + 2t^{12}u^{29} + 3t^{28}u^{12} + 11t^{25}u^{15} + 19t^{22}u^{18} + 20t^{19}u^{21} + 16t^{16}u^{24} + \\
& 5t^{13}u^{27} + t^{29}u^{10} + 9t^{26}u^{13} + 19t^{23}u^{16} + 25t^{20}u^{19} + 22t^{17}u^{22} + 12t^{14}u^{25} + 3t^{11}u^{28} + 4t^{27}u^{11} + 16t^{24}u^{14} + \\
& 24t^{21}u^{17} + 26t^{18}u^{20} + 19t^{15}u^{23} + 7t^{12}u^{26} + t^9u^{29} + 3t^{28}u^9 + 12t^{25}u^{12} + 23t^{22}u^{15} + 30t^{19}u^{18} + 26t^{16}u^{21} + \\
& 16t^{13}u^{24} + 5t^{10}u^{27} + t^7u^{30} + 5t^{26}u^{10} + 17t^{23}u^{13} + 29t^{20}u^{16} + 31t^{17}u^{19} + 22t^{14}u^{22} + 8t^{11}u^{25} + t^8u^{28} + t^{30}u^5 + \\
& 4t^{27}u^8 + 15t^{24}u^{11} + 26t^{21}u^{14} + 34t^{18}u^{17} + 31t^{15}u^{20} + 18t^{12}u^{23} + 7t^9u^{26} + t^6u^{29} + 7t^{25}u^9 + 19t^{22}u^{12} + \\
& 33t^{19}u^{15} + 35t^{16}u^{18} + 24t^{13}u^{21} + 10t^{10}u^{24} + 2t^7u^{27} + t^{29}u^4 + 5t^{26}u^7 + 16t^{23}u^{10} + 29t^{20}u^{13} + 38t^{17}u^{16} + \\
& 34t^{14}u^{19} + 20t^{11}u^{22} + 8t^8u^{25} + 2t^5u^{28} + t^{27}u^5 + 8t^{24}u^8 + 20t^{21}u^{11} + 35t^{18}u^{14} + 38t^{15}u^{17} + 26t^{12}u^{20} + \\
& 11t^9u^{23} + 2t^6u^{26} + t^{28}u^3 + 5t^{25}u^6 + 16t^{22}u^9 + 30t^{19}u^{12} + 41t^{16}u^{15} + 34t^{13}u^{18} + 20t^{10}u^{21} + 8t^7u^{24} + 2t^4u^{27} + \\
& t^{26}u^4 + 9t^{23}u^7 + 21t^{20}u^{10} + 35t^{17}u^{13} + 40t^{14}u^{16} + 27t^{11}u^{19} + 12t^8u^{22} + 3t^5u^{25} + t^{27}u^2 + 5t^{24}u^5 + 16t^{21}u^8 + \\
& 30t^{18}u^{11} + 41t^{15}u^{14} + 34t^{12}u^{17} + 20t^9u^{20} + 8t^6u^{23} + 2t^3u^{26} + t^{25}u^3 + 8t^{22}u^6 + 20t^{19}u^9 + 35t^{16}u^{12} + 38t^{13}u^{15} + \\
& 26t^{10}u^{18} + 11t^7u^{21} + 2t^4u^{24} + t^{26}u + 5t^{23}u^4 + 16t^{20}u^7 + 29t^{17}u^{10} + 38t^{14}u^{13} + 34t^{11}u^{16} + 20t^8u^{19} + 8t^5u^{22} + \\
& 2t^2u^{25} + 7t^{21}u^5 + 19t^{18}u^8 + 33t^{15}u^{11} + 35t^{12}u^{14} + 24t^9u^{17} + 10t^6u^{20} + 2t^3u^{23} + t^{25} + 4t^{22}u^3 + 15t^{19}u^6 + \\
& 26t^{16}u^9 + 34t^{13}u^{12} + 31t^{10}u^{15} + 18t^7u^{18} + 7t^4u^{21} + tu^{24} + 5t^{20}u^4 + 17t^{17}u^7 + 29t^{14}u^{10} + 31t^{11}u^{13} + 22t^8u^{16} + \\
& 8t^5u^{19} + t^2u^{22} + 3t^{21}u^2 + 12t^{18}u^5 + 23t^{15}u^8 + 30t^{12}u^{11} + 26t^9u^{14} + 16t^6u^{17} + 5t^3u^{20} + u^{23} + 4t^{19}u^3 + 16t^{16}u^6 + \\
& 24t^{13}u^9 + 26t^{10}u^{12} + 19t^7u^{15} + 7t^4u^{18} + tu^{21} + t^{20}u + 9t^{17}u^4 + 19t^{14}u^7 + 25t^{11}u^{10} + 22t^8u^{13} + 12t^5u^{16} + \\
& 3t^2u^{19} + 3t^{18}u^2 + 11t^{15}u^5 + 19t^{12}u^8 + 20t^9u^{11} + 16t^6u^{14} + 5t^3u^{17} + 6t^{16}u^3 + 16t^{13}u^6 + 20t^{10}u^9 + 18t^7u^{12} + \\
& 9t^4u^{15} + 2tu^{18} + 2t^{17}u + 8t^{14}u^4 + 14t^{11}u^7 + 15t^8u^{10} + 11t^5u^{13} + 3t^2u^{16} + 4t^{15}u^2 + 12t^{12}u^5 + 16t^9u^8 + \\
& 15t^6u^{11} + 6t^3u^{14} + u^{17} + 5t^{13}u^3 + 10t^{10}u^6 + 11t^7u^9 + 7t^4u^{12} + tu^{15} + 2t^{14}u + 8t^{11}u^4 + 11t^8u^7 + 10t^5u^{10} + \\
& 4t^2u^{13} + 3t^{12}u^2 + 7t^9u^5 + 8t^6u^8 + 4t^3u^{11} + t^{13} + 5t^{10}u^3 + 8t^7u^6 + 7t^4u^9 + 2tu^{12} + t^{11}u + 4t^8u^4 + 5t^5u^7 + \\
& 2t^2u^{10} + 3t^9u^2 + 5t^6u^5 + 4t^3u^8 + 2t^7u^3 + 2t^4u^6 + tu^9 + 2t^8u + 4t^5u^4 + 3t^2u^7 + t^3u^5 + t^7 + 2t^4u^3 + tu^6 + t^3u^2 + u^5
\end{aligned}$$

$$M_L(t, u)_5 = M_L(t, u)_6 = (t^{16}u^{16} + t^{18}u^{12} + 2t^{15}u^{15} + t^{12}u^{18} + 2t^{17}u^{11} + 4t^{14}u^{14} + 2t^{11}u^{17} - t^{18}u^9 - t^9u^{18} + 3t^{16}u^{10} + 6t^{13}u^{13} + 3t^{10}u^{16} + t^{18}u^6 + 5t^{15}u^9 + 7t^{12}u^{12} + 5t^9u^{15} + t^6u^{18} + t^{17}u^5 + 6t^{14}u^8 + 8t^{11}u^{11} +$$

$$6t^8u^{14} + t^5u^{17} + t^{12}u^9 + t^9u^{12} + 2t^{16}u^4 + 8t^{13}u^7 + 9t^{10}u^{10} + 8t^7u^{13} + 2t^4u^{16} + 2t^{15}u^3 + 7t^{12}u^6 + 8t^9u^9 + 7t^6u^{12} + 2t^3u^{15} + 2t^{14}u^2 + 8t^{11}u^5 + 9t^8u^8 + 8t^5u^{11} + 2t^2u^{14} + t^9u^6 + t^6u^9 + t^{13}u + 6t^{10}u^4 + 8t^7u^7 + 6t^4u^{10} + tu^{13} + t^{12} + 5t^9u^3 + 7t^6u^6 + 5t^3u^9 + u^{12} + 3t^8u^2 + 6t^5u^5 + 3t^2u^8 - t^9 - u^9 + 2t^7u + 4t^4u^4 + 2tu^7 + t^6 + 2t^3u^3 + u^6 + t^2u^2)(u^4 + u^3 + u^2 + u + 1)(u^8 - u^7 + u^5 - u^4 + u^3 - u + 1)(t^4 + t^3 + t^2 + t + 1)(t^8 - t^7 + t^5 - t^4 + t^3 - t + 1)$$

$$M_L(t, u)_7 = (t^{24}u^{22} + t^{23}u^{21} + t^{20}u^{24} + 3t^{22}u^{20} + 2t^{19}u^{23} + t^{23}u^{18} + t^{20}u^{21} + 5t^{21}u^{19} + 3t^{18}u^{22} + 2t^{22}u^{17} + 3t^{19}u^{20} + t^{16}u^{23} + 2t^{23}u^{15} + 8t^{20}u^{18} + 6t^{17}u^{21} + t^{14}u^{24} + 5t^{21}u^{16} + 7t^{18}u^{19} + 3t^{15}u^{22} + 4t^{22}u^{14} + 12t^{19}u^{17} + 9t^{16}u^{20} + 2t^{13}u^{23} + t^{23}u^{12} + 8t^{20}u^{15} + 11t^{17}u^{18} + 6t^{14}u^{21} + t^{24}u^{10} + 6t^{21}u^{13} + 16t^{18}u^{16} + 13t^{15}u^{19} + 4t^{12}u^{22} + 3t^{22}u^{11} + 13t^{19}u^{14} + 16t^{16}u^{17} + 9t^{13}u^{20} + 2t^{10}u^{23} + 2t^{23}u^9 + 9t^{20}u^{12} + 18t^{17}u^{15} + 15t^{14}u^{18} + 6t^{11}u^{21} + 6t^{21}u^{10} + 17t^{18}u^{13} + 19t^{15}u^{16} + 13t^{12}u^{19} + 3t^9u^{22} + 3t^{22}u^8 + 12t^{19}u^{11} + 19t^{16}u^{14} + 17t^{13}u^{17} + 9t^{10}u^{20} + t^7u^{23} + t^{23}u^6 + 8t^{20}u^9 + 20t^{17}u^{12} + 21t^{14}u^{15} + 17t^{11}u^{18} + 5t^8u^{21} + t^{24}u^4 + 6t^{21}u^7 + 15t^{18}u^{10} + 21t^{15}u^{13} + 19t^{12}u^{16} + 13t^9u^{19} + 3t^6u^{22} + t^{22}u^5 + 10t^{19}u^8 + 21t^{16}u^{11} + 21t^{13}u^{14} + 18t^{10}u^{17} + 6t^7u^{20} + t^{23}u^3 + 8t^{20}u^6 + 18t^{17}u^9 + 22t^{14}u^{12} + 21t^{11}u^{15} + 16t^8u^{18} + 5t^5u^{21} + t^2u^{24} + t^{21}u^4 + 11t^{18}u^7 + 21t^{15}u^{10} + 20t^{12}u^{13} + 19t^9u^{16} + 7t^6u^{19} + 2t^{22}u^2 + 10t^{19}u^5 + 20t^{16}u^8 + 23t^{13}u^{11} + 22t^{10}u^{14} + 18t^7u^{17} + 6t^4u^{20} + tu^{23} + t^{20}u^3 + 11t^{17}u^6 + 21t^{14}u^9 + 20t^{11}u^{12} + 19t^8u^{15} + 7t^5u^{18} + t^{21}u + 8t^{18}u^4 + 18t^{15}u^7 + 22t^{12}u^{10} + 21t^9u^{13} + 16t^6u^{16} + 5t^3u^{19} + u^{22} + t^{19}u^2 + 10t^{16}u^5 + 21t^{13}u^8 + 21t^{10}u^{11} + 18t^7u^{14} + 6t^4u^{17} + t^{20} + 6t^{17}u^3 + 15t^{14}u^6 + 21t^{11}u^9 + 19t^8u^{12} + 13t^5u^{15} + 3t^2u^{18} + t^{18}u + 8t^{15}u^4 + 20t^{12}u^7 + 21t^9u^{10} + 17t^6u^{13} + 5t^3u^{16} + 3t^{16}u^2 + 12t^{13}u^5 + 19t^{10}u^8 + 17t^7u^{11} + 9t^4u^{14} + tu^{17} + 6t^{14}u^3 + 17t^{11}u^6 + 19t^8u^9 + 13t^5u^{12} + 3t^2u^{15} + 2t^{15}u + 9t^{12}u^4 + 18t^9u^7 + 15t^6u^{10} + 6t^3u^{13} + 3t^{13}u^2 + 13t^{10}u^5 + 16t^7u^8 + 9t^4u^{11} + 2tu^{14} + t^{14} + 6t^{11}u^3 + 16t^8u^6 + 13t^5u^9 + 4t^2u^{12} + t^{12}u + 8t^9u^4 + 11t^6u^7 + 6t^3u^{10} + 4t^{10}u^2 + 12t^7u^5 + 9t^4u^8 + 2tu^{11} + 5t^8u^3 + 7t^5u^6 + 3t^2u^9 + 2t^9u + 8t^6u^4 + 6t^3u^7 + u^{10} + 2t^7u^2 + 3t^4u^5 + tu^8 + 5t^5u^3 + 3t^2u^6 + t^6u + t^3u^4 + 3t^4u^2 + 2tu^5 + t^3u + u^4 + t^2)(u^2 + 1)(u^4 - u^2 + 1)(t^2 + 1)(t^4 - t^2 + 1)$$

$$M_L(t, u)_8 = M_L(u, t)_7$$

$$M_L(t, u)_9 = (t^{16}u^{16} + t^{17}u^{14} + t^{14}u^{17} + 2t^{15}u^{15} + t^{16}u^{13} + t^{13}u^{16} + t^{14}u^{14} + t^{18}u^9 + 2t^{15}u^{12} + 2t^{12}u^{15} + t^9u^{18} + t^{16}u^{10} + 2t^{13}u^{13} + t^{10}u^{16} + t^{17}u^8 + 3t^{14}u^{11} + 3t^{11}u^{14} + t^8u^{17} + t^{12}u^{12} + t^{16}u^7 + 2t^{13}u^{10} + 2t^{10}u^{13} + t^7u^{16} + t^{17}u^5 + t^{14}u^8 + t^{11}u^{11} + t^8u^{14} + t^5u^{17} + 2t^{15}u^6 + 3t^{12}u^9 + 3t^9u^{12} + 2t^6u^{15} + 2t^{16}u^4 + 2t^{13}u^7 + 2t^{10}u^{10} + 2t^7u^{13} + 2t^4u^{16} + t^{14}u^5 + 2t^{11}u^8 + 2t^8u^{11} + t^5u^{14} + 2t^{15}u^3 + t^{12}u^6 + t^9u^9 + t^6u^{12} + 2t^3u^{15} + t^{13}u^4 + 2t^{10}u^7 + 2t^7u^{10} + t^4u^{13} + 2t^{14}u^2 + 2t^{11}u^5 + 2t^8u^8 + 2t^5u^{11} + 2t^2u^{14} + 2t^{12}u^3 + 3t^9u^6 + 3t^6u^9 + 2t^3u^{12} + t^{13}u + t^{10}u^4 + t^7u^7 + t^4u^{10} + tu^{13} + t^{11}u^2 + 2t^8u^5 + 2t^5u^8 + t^2u^{11} + t^6u^6 + t^{10}u + 3t^7u^4 + 3t^4u^7 + tu^{10} + t^8u^2 + 2t^5u^5 + t^2u^8 + t^9 + 2t^6u^3 + 2t^3u^6 + u^9 + t^4u^4 + t^5u^2 + t^2u^5 + 2t^3u^3 + t^4u + tu^4 + t^2u^2)(u^2 + 1)(u^4 - u^2 + 1)(u + 1)^2(u^2 - u + 1)^2(t^2 + 1)(t^4 - t^2 + 1)(t + 1)^2(t^2 - t + 1)^2$$

$$M_L(t, u)_{10} = (t^{17}u^{17} + t^{16}u^{16} - t^{17}u^{14} - t^{14}u^{17} + t^{18}u^{12} + 2t^{15}u^{15} + t^{12}u^{18} + t^{16}u^{13} + t^{13}u^{16} + 2t^{17}u^{11} + 5t^{14}u^{14} + 2t^{11}u^{17} - t^{18}u^9 - t^9u^{18} + t^{16}u^{10} + 2t^{13}u^{13} + t^{10}u^{16} - t^{14}u^{11} - t^{11}u^{14} + t^{18}u^6 + 4t^{15}u^9 + 4t^{12}u^{12} + 4t^9u^{15} + t^6u^{18} + 2t^{16}u^7 + 2t^{13}u^{10} + 2t^{10}u^{13} + 2t^7u^{16} + 3t^{14}u^8 + 4t^{11}u^{11} + 3t^8u^{14} - t^{12}u^9 - t^9u^{12} + t^{13}u^7 + 2t^{10}u^{10} + t^7u^{13} + t^{17}u^2 + 3t^{14}u^5 + t^{11}u^8 + t^8u^{11} + 3t^5u^{14} + t^2u^{17} + 2t^{15}u^3 + 4t^{12}u^6 + 5t^9u^9 + 4t^6u^{12} + 2t^3u^{15} + t^{16}u + 3t^{13}u^4 + t^{10}u^7 + t^7u^{10} + 3t^4u^{13} + tu^{16} + t^{11}u^5 + 2t^8u^8 + t^5u^{11} - t^9u^6 - t^6u^9 + 3t^{10}u^4 + 4t^7u^7 + 3t^4u^{10} + 2t^{11}u^2 + 2t^8u^5 + 2t^5u^8 + 2t^2u^{11} + t^{12} + 4t^9u^3 + 4t^6u^6 + 4t^3u^9 + u^{12} - t^7u^4 - t^4u^7 + t^8u^2 + 2t^5u^5 + t^2u^8 - t^9 - u^9 + 2t^7u + 5t^4u^4 + 2tu^7 + t^5u^2 + t^2u^5 + t^6 + 2t^3u^3 + u^6 - t^4u - tu^4 + t^2u^2 + tu)(u^2 + 1)(u^4 - u^2 + 1)(u + 1)^2(u^2 - u + 1)^2(t^2 + 1)(t^4 - t^2 + 1)(t + 1)^2(t^2 - t + 1)^2$$

$$M_L(t, u)_{11} = t^{28}u^{28} + t^{29}u^{26} + t^{26}u^{29} + t^{30}u^{24} + 3t^{27}u^{27} + t^{24}u^{30} + 2t^{28}u^{25} + 2t^{25}u^{28} + 3t^{29}u^{23} + 7t^{26}u^{26} + 3t^{23}u^{29} + t^{30}u^{21} + 6t^{27}u^{24} + 6t^{24}u^{27} + t^{21}u^{30} + 7t^{28}u^{22} + 12t^{25}u^{25} + 7t^{22}u^{28} + 3t^{29}u^{20} + 11t^{26}u^{23} + 11t^{23}u^{26} + 3t^{20}u^{29} + 2t^{30}u^{18} + 12t^{27}u^{21} + 19t^{24}u^{24} + 12t^{21}u^{27} + 2t^{18}u^{30} + 8t^{28}u^{19} + 20t^{25}u^{22} + 20t^{22}u^{25} + 8t^{19}u^{28} + 6t^{29}u^{17} + 20t^{26}u^{20} + 28t^{23}u^{23} + 20t^{20}u^{26} + 6t^{17}u^{29} + t^{30}u^{15} + 15t^{27}u^{18} + 29t^{24}u^{21} + 29t^{21}u^{24} + 15t^{18}u^{27} + t^{15}u^{30} + 11t^{28}u^{16} + 31t^{25}u^{19} + 39t^{22}u^{22} + 31t^{19}u^{25} + 11t^{16}u^{28} + 5t^{29}u^{14} + 24t^{26}u^{17} + 41t^{23}u^{20} + 41t^{20}u^{23} + 24t^{17}u^{26} + 5t^{14}u^{29} + 2t^{30}u^{12} + 18t^{27}u^{15} + 43t^{24}u^{18} + 52t^{21}u^{21} + 43t^{18}u^{24} + 18t^{15}u^{27} + 2t^{12}u^{30} + 10t^{28}u^{13} + 36t^{25}u^{16} + 54t^{22}u^{19} + 54t^{19}u^{22} + 36t^{16}u^{25} + 10t^{13}u^{28} + 4t^{29}u^{11} + 26t^{26}u^{14} + 55t^{23}u^{17} + 66t^{20}u^{20} + 55t^{17}u^{23} + 26t^{14}u^{26} + 4t^{11}u^{29} + t^{30}u^9 + 15t^{27}u^{12} + 47t^{24}u^{15} + 69t^{21}u^{18} + 69t^{18}u^{21} + 47t^{15}u^{24} + 15t^{12}u^{27} + t^9u^{30} + 8t^{28}u^{10} + 36t^{25}u^{13} + 67t^{22}u^{16} + 82t^{19}u^{19} + 67t^{16}u^{22} + 36t^{13}u^{25} + 8t^{10}u^{28} + 3t^{29}u^8 + 20t^{26}u^{11} + 57t^{23}u^{14} + 84t^{20}u^{17} + 84t^{17}u^{20} + 57t^{14}u^{23} + 20t^{11}u^{26} + 3t^{28}u^{29} + t^{30}u^6 + 12t^{27}u^9 + 43t^{24}u^{12} + 79t^{21}u^{15} + 96t^{18}u^{18} + 79t^{15}u^{21} + 43t^{12}u^{24} + 12t^9u^{27} + t^6u^{30} + 4t^{28}u^7 + 25t^{25}u^{10} + 63t^{22}u^{13} + 98t^{19}u^{16} + 98t^{16}u^{19} +$$

$$\begin{aligned}
& 63t^{13}u^{22} + 25t^{10}u^{25} + 4t^7u^{28} + 2t^{29}u^5 + 16t^{26}u^8 + 49t^{23}u^{11} + 89t^{20}u^{14} + 108t^{17}u^{17} + 89t^{14}u^{20} + 49t^{11}u^{23} + \\
& 16t^8u^{26} + 2t^5u^{29} + 6t^{27}u^6 + 29t^{24}u^9 + 69t^{21}u^{12} + 108t^{18}u^{15} + 108t^{15}u^{18} + 69t^{12}u^{21} + 29t^9u^{24} + 6t^6u^{27} + \\
& 3t^{28}u^4 + 18t^{25}u^7 + 51t^{22}u^{10} + 95t^{19}u^{13} + 119t^{16}u^{16} + 95t^{13}u^{19} + 51t^{10}u^{22} + 18t^7u^{25} + 3t^4u^{28} + 7t^{26}u^5 + \\
& 31t^{23}u^8 + 72t^{20}u^{11} + 113t^{17}u^{14} + 113t^{14}u^{17} + 72t^{11}u^{20} + 31t^8u^{23} + 7t^5u^{26} + 3t^{27}u^3 + 19t^{24}u^6 + 52t^{21}u^9 + \\
& 96t^{18}u^{12} + 124t^{15}u^{15} + 96t^{12}u^{18} + 52t^9u^{21} + 19t^6u^{24} + 3t^3u^{27} + 7t^{25}u^4 + 31t^{22}u^7 + 72t^{19}u^{10} + 113t^{16}u^{13} + \\
& 113t^{13}u^{16} + 72t^{10}u^{19} + 31t^7u^{22} + 7t^4u^{25} + 3t^{26}u^2 + 18t^{23}u^5 + 51t^{20}u^8 + 95t^{17}u^{11} + 119t^{14}u^{14} + 95t^{11}u^{17} + \\
& 51t^8u^{20} + 18t^5u^{23} + 3t^2u^{26} + 6t^{24}u^3 + 29t^{21}u^6 + 69t^{18}u^9 + 108t^{15}u^{12} + 108t^{12}u^{15} + 69t^9u^{18} + 29t^6u^{21} + \\
& 6t^3u^{24} + 2t^{25}u + 16t^{22}u^4 + 49t^{19}u^7 + 89t^{16}u^{10} + 108t^{13}u^{13} + 89t^{10}u^{16} + 49t^7u^{19} + 16t^4u^{22} + 2tu^{25} + \\
& 4t^{23}u^2 + 25t^{20}u^5 + 63t^{17}u^8 + 98t^{14}u^{11} + 98t^{11}u^{14} + 63t^8u^{17} + 25t^5u^{20} + 4t^2u^{23} + t^{24} + 12t^{21}u^3 + 43t^{18}u^6 + \\
& 79t^{15}u^9 + 96t^{12}u^{12} + 79t^9u^{15} + 43t^6u^{18} + 12t^3u^{21} + u^{24} + 3t^{22}u + 20t^{19}u^4 + 57t^{16}u^7 + 84t^{13}u^{10} + 84t^{10}u^{13} + \\
& 57t^7u^{16} + 20t^4u^{19} + 3tu^{22} + 8t^{20}u^2 + 36t^{17}u^5 + 67t^{14}u^8 + 82t^{11}u^{11} + 67t^8u^{14} + 36t^5u^{17} + 8t^2u^{20} + t^{21} + \\
& 15t^{18}u^3 + 47t^{15}u^6 + 69t^{12}u^9 + 69t^9u^{12} + 47t^6u^{15} + 15t^3u^{18} + u^{21} + 4t^{19}u + 26t^{16}u^4 + 55t^{13}u^7 + 66t^{10}u^{10} + \\
& 55t^7u^{13} + 26t^4u^{16} + 4tu^{19} + 10t^{17}u^2 + 36t^{14}u^5 + 54t^{11}u^8 + 54t^8u^{11} + 36t^5u^{14} + 10t^2u^{17} + 2t^{18} + 18t^{15}u^3 + \\
& 43t^{12}u^6 + 52t^9u^9 + 43t^6u^{12} + 18t^3u^{15} + 2u^{18} + 5t^{16}u + 24t^{13}u^4 + 41t^{10}u^7 + 41t^7u^{10} + 24t^4u^{13} + 5tu^{16} + \\
& 11t^{14}u^2 + 31t^{11}u^5 + 39t^8u^8 + 31t^5u^{11} + 11t^2u^{14} + t^{15} + 15t^{12}u^3 + 29t^9u^6 + 29t^6u^9 + 15t^3u^{12} + u^{15} + \\
& 6t^{13}u + 20t^{10}u^4 + 28t^7u^7 + 20t^4u^{10} + 6tu^{13} + 8t^{11}u^2 + 20t^8u^5 + 20t^5u^8 + 8t^2u^{11} + 2t^{12} + 12t^9u^3 + \\
& 19t^6u^6 + 12t^3u^9 + 2u^{12} + 3t^{10}u + 11t^7u^4 + 11t^4u^7 + 3tu^{10} + 7t^8u^2 + 12t^5u^5 + 7t^2u^8 + t^9 + 6t^6u^3 + \\
& 6t^3u^6 + u^9 + 3t^7u + 7t^4u^4 + 3tu^7 + 2t^5u^2 + 2t^2u^5 + t^6 + 3t^3u^3 + u^6 + t^4u + tu^4 + t^2u^2
\end{aligned}$$

$$\begin{aligned}
M_L(t, u)_{12} = & t^{29}u^{27} + t^{26}u^{30} + t^{27}u^{28} + 3t^{28}u^{26} + 2t^{25}u^{29} + t^{29}u^{24} + 3t^{26}u^{27} + 2t^{30}u^{22} + 6t^{27}u^{25} + 5t^{24}u^{28} + \\
& 4t^{28}u^{23} + 7t^{25}u^{26} + 3t^{22}u^{29} + 4t^{29}u^{21} + 11t^{26}u^{24} + 9t^{23}u^{27} + t^{20}u^{30} + t^{30}u^{19} + 9t^{27}u^{22} + 13t^{24}u^{25} + \\
& 6t^{21}u^{28} + 8t^{28}u^{20} + 18t^{25}u^{23} + 16t^{22}u^{26} + 4t^{19}u^{29} + 5t^{29}u^{18} + 16t^{26}u^{21} + 22t^{23}u^{24} + 12t^{20}u^{27} + 2t^{17}u^{30} + \\
& 2t^{30}u^{16} + 15t^{27}u^{19} + 27t^{24}u^{22} + 25t^{21}u^{25} + 10t^{18}u^{28} + 10t^{28}u^{17} + 25t^{25}u^{20} + 31t^{22}u^{23} + 20t^{19}u^{26} + 5t^{16}u^{29} + \\
& 5t^{29}u^{15} + 24t^{26}u^{18} + 38t^{23}u^{21} + 36t^{20}u^{24} + 17t^{17}u^{27} + 2t^{14}u^{30} + 2t^{30}u^{13} + 17t^{27}u^{16} + 37t^{24}u^{19} + 43t^{21}u^{22} + \\
& 32t^{18}u^{25} + 10t^{15}u^{28} + 11t^{28}u^{14} + 36t^{25}u^{17} + 51t^{22}u^{20} + 49t^{19}u^{23} + 26t^{16}u^{26} + 6t^{13}u^{29} + 5t^{29}u^{12} + 25t^{26}u^{15} + \\
& 50t^{23}u^{18} + 56t^{20}u^{21} + 44t^{17}u^{24} + 17t^{14}u^{27} + t^{11}u^{30} + t^{30}u^{10} + 17t^{27}u^{13} + 47t^{24}u^{16} + 65t^{21}u^{19} + 61t^{18}u^{22} + \\
& 37t^{15}u^{25} + 10t^{12}u^{28} + 8t^{28}u^{11} + 36t^{25}u^{14} + 63t^{22}u^{17} + 72t^{19}u^{20} + 57t^{16}u^{23} + 24t^{13}u^{26} + 3t^{10}u^{29} + 4t^{29}u^9 + \\
& 24t^{26}u^{12} + 59t^{23}u^{15} + 80t^{20}u^{18} + 75t^{17}u^{21} + 47t^{14}u^{24} + 15t^{11}u^{27} + 2t^8u^{30} + 12t^{27}u^{10} + 44t^{24}u^{13} + 77t^{21}u^{16} + \\
& 88t^{18}u^{19} + 67t^{15}u^{22} + 32t^{12}u^{25} + 6t^9u^{28} + 7t^{28}u^8 + 31t^{25}u^{11} + 67t^{22}u^{14} + 95t^{19}u^{17} + 89t^{16}u^{20} + 55t^{13}u^{23} + \\
& 20t^{10}u^{26} + 3t^7u^{29} + t^{29}u^6 + 16t^{26}u^9 + 50t^{23}u^{12} + 89t^{20}u^{15} + 101t^{17}u^{18} + 77t^{14}u^{21} + 37t^{11}u^{24} + 9t^8u^{27} + \\
& t^{30}u^4 + 9t^{27}u^7 + 36t^{24}u^{10} + 75t^{21}u^{13} + 107t^{18}u^{16} + 101t^{15}u^{19} + 61t^{12}u^{22} + 25t^9u^{25} + 5t^6u^{28} + 2t^{28}u^5 + \\
& 20t^{25}u^8 + 54t^{22}u^{11} + 98t^{19}u^{14} + 113t^{16}u^{17} + 84t^{13}u^{20} + 41t^{10}u^{23} + 11t^7u^{26} + t^4u^{29} + t^{29}u^3 + 11t^{26}u^6 + \\
& 38t^{23}u^9 + 80t^{20}u^{12} + 116t^{17}u^{15} + 107t^{14}u^{18} + 65t^{11}u^{21} + 27t^8u^{24} + 6t^5u^{27} + 3t^{27}u^4 + 22t^{24}u^7 + 56t^{21}u^{10} + \\
& 101t^{18}u^{13} + 121t^{15}u^{16} + 88t^{12}u^{19} + 43t^9u^{22} + 13t^6u^{25} + t^3u^{28} + t^{28}u^2 + 12t^{25}u^5 + 39t^{22}u^8 + 82t^{19}u^{11} + \\
& 119t^{16}u^{14} + 108t^{13}u^{17} + 66t^{10}u^{20} + 28t^7u^{23} + 7t^4u^{26} + 3t^{26}u^3 + 22t^{23}u^6 + 56t^{20}u^9 + 101t^{17}u^{12} + 121t^{14}u^{15} + \\
& 88t^{11}u^{18} + 43t^8u^{21} + 13t^5u^{24} + t^2u^{27} + t^{27}u + 11t^{24}u^4 + 38t^{21}u^7 + 80t^{18}u^{10} + 116t^{15}u^{13} + 107t^{12}u^{16} + \\
& 65t^9u^{19} + 27t^6u^{22} + 6t^3u^{25} + 2t^{25}u^2 + 20t^{22}u^5 + 54t^{19}u^8 + 98t^{16}u^{11} + 113t^{13}u^{14} + 84t^{10}u^{17} + 41t^7u^{20} + \\
& 11t^4u^{23} + tu^{26} + t^{26} + 9t^{23}u^3 + 36t^{20}u^6 + 75t^{17}u^9 + 107t^{14}u^{12} + 101t^{11}u^{15} + 61t^8u^{18} + 25t^5u^{21} + 5t^2u^{24} + \\
& t^{24}u + 16t^{21}u^4 + 50t^{18}u^7 + 89t^{15}u^{10} + 101t^{12}u^{13} + 77t^9u^{16} + 37t^6u^{19} + 9t^3u^{22} + 7t^{22}u^2 + 31t^{19}u^5 + \\
& 67t^{16}u^8 + 95t^{13}u^{11} + 89t^{10}u^{14} + 55t^7u^{17} + 20t^4u^{20} + 3tu^{23} + 12t^{20}u^3 + 44t^{17}u^6 + 77t^{14}u^9 + 88t^{11}u^{12} + \\
& 67t^8u^{15} + 32t^5u^{18} + 6t^2u^{21} + 4t^{21}u + 24t^{18}u^4 + 59t^{15}u^7 + 80t^{12}u^{10} + 75t^9u^{13} + 47t^6u^{16} + 15t^3u^{19} + \\
& 2u^{22} + 8t^{19}u^2 + 36t^{16}u^5 + 63t^{13}u^8 + 72t^{10}u^{11} + 57t^7u^{14} + 24t^4u^{17} + 3tu^{20} + t^{20} + 17t^{17}u^3 + 47t^{14}u^6 + \\
& 65t^{11}u^9 + 61t^8u^{12} + 37t^5u^{15} + 10t^2u^{18} + 5t^{18}u + 25t^{15}u^4 + 50t^{12}u^7 + 56t^9u^{10} + 44t^6u^{13} + 17t^3u^{16} + \\
& u^{19} + 11t^{16}u^2 + 36t^{13}u^5 + 51t^{10}u^8 + 49t^7u^{11} + 26t^4u^{14} + 6tu^{17} + 2t^{17} + 17t^{14}u^3 + 37t^{11}u^6 + 43t^8u^9 + \\
& 32t^5u^{12} + 10t^2u^{15} + 5t^{15}u + 24t^{12}u^4 + 38t^9u^7 + 36t^6u^{10} + 17t^3u^{13} + 2u^{16} + 10t^{13}u^2 + 25t^{10}u^5 + 31t^7u^8 + \\
& 20t^4u^{11} + 5tu^{14} + 2t^{14} + 15t^{11}u^3 + 27t^8u^6 + 25t^5u^9 + 10t^2u^{12} + 5t^{12}u + 16t^9u^4 + 22t^6u^7 + 12t^3u^{10} + \\
& 2u^{13} + 8t^{10}u^2 + 18t^7u^5 + 16t^4u^8 + 4tu^{11} + t^{11} + 9t^8u^3 + 13t^5u^6 + 6t^2u^9 + 4t^9u + 11t^6u^4 + 9t^3u^7 + u^{10} + \\
& 4t^7u^2 + 7t^4u^5 + 3tu^8 + 2t^8 + 6t^5u^3 + 5t^2u^6 + t^6u + 3t^3u^4 + 3t^4u^2 + 2tu^5 + t^2u^3 + t^3u + u^4
\end{aligned}$$

$$M_L(t, u)_{13} = M_L(u, t)_{12}$$

$$\begin{aligned}
M_L(t, u)_{14} = & (t^{12}u^9 + t^9u^{12} + 2t^{11}u^8 + 2t^8u^{11} - t^{12}u^6 - t^6u^{12} + 5t^{10}u^7 + 5t^7u^{10} + t^{12}u^3 + 7t^9u^6 + \\
& 7t^6u^9 + t^3u^{12} + t^{11}u^2 + 10t^8u^5 + 10t^5u^8 + t^2u^{11} + 4t^6u^6 + t^{10}u + 10t^7u^4 + 10t^4u^7 + tu^{10} + t^9 + 7t^6u^3 + \\
& 7t^3u^6 + u^9 + 5t^5u^2 + 5t^2u^5 - t^6 - u^6 + 2t^4u + 2tu^4 + t^3 + u^3)(u^2 + 1)(u^4 - u^2 + 1)(u^4 + u^3 + u^2 + u + 1) \\
& (u^8 - u^7 + u^5 - u^4 + u^3 - u + 1)(t^2 + 1)(t^4 - t^2 + 1)(t^4 + t^3 + t^2 + t + 1)(t^8 - t^7 + t^5 - t^4 + t^3 - t + 1)
\end{aligned}$$

$$\begin{aligned}
M_L(t, u)_{15} = & (t^{16}u^{17} + t^{17}u^{15} + t^{18}u^{13} + 3t^{15}u^{16} + 2t^{16}u^{14} + t^{13}u^{17} + 3t^{17}u^{12} + 6t^{14}u^{15} + 2t^{11}u^{18} + \\
& 4t^{15}u^{13} + 3t^{12}u^{16} + 6t^{16}u^{11} + 10t^{13}u^{14} + 3t^{10}u^{17} + t^{17}u^9 + 6t^{14}u^{12} + 4t^{11}u^{15} + 2t^{18}u^7 + 9t^{15}u^{10} + \\
& 14t^{12}u^{13} + 6t^9u^{16} + 3t^{16}u^8 + 8t^{13}u^{11} + 6t^{10}u^{14} + 2t^7u^{17} + 3t^{17}u^6 + 12t^{14}u^9 + 16t^{11}u^{12} + 9t^8u^{15} + t^5u^{18} + \\
& 4t^{15}u^7 + 9t^{12}u^{10} + 7t^9u^{13} + 3t^6u^{16} + 5t^{16}u^5 + 15t^{13}u^8 + 18t^{10}u^{11} + 12t^7u^{14} + 2t^4u^{17} + t^{17}u^3 + 6t^{14}u^6 + \\
& 10t^{11}u^9 + 9t^8u^{12} + 4t^5u^{15} + 6t^{15}u^4 + 16t^{12}u^7 + 18t^9u^{10} + 14t^6u^{13} + 3t^3u^{16} + t^{16}u^2 + 6t^{13}u^5 + 9t^{10}u^8 + \\
& 8t^7u^{11} + 4t^4u^{14} + 6t^{14}u^3 + 16t^{11}u^6 + 18t^8u^9 + 14t^5u^{12} + 3t^2u^{15} + t^{15}u + 6t^{12}u^4 + 10t^9u^7 + 9t^6u^{10} + \\
& 4t^3u^{13} + 5t^{13}u^2 + 15t^{10}u^5 + 18t^7u^8 + 12t^4u^{11} + 2tu^{14} + 4t^{11}u^3 + 9t^8u^6 + 7t^5u^9 + 3t^2u^{12} + 3t^{12}u + \\
& 12t^9u^4 + 16t^6u^7 + 9t^3u^{10} + u^{13} + 3t^{10}u^2 + 8t^7u^5 + 6t^4u^8 + 2tu^{11} + 2t^{11} + 9t^8u^3 + 14t^5u^6 + 6t^2u^9 + \\
& t^9u + 6t^6u^4 + 4t^3u^7 + 6t^7u^2 + 10t^4u^5 + 3tu^8 + 4t^5u^3 + 3t^2u^6 + 3t^6u + 6t^3u^4 + 2u^7 + 2t^4u^2 + tu^5 + t^5 + \\
& 3t^2u^3 + t^3u + tu^2) (u^4 + u^3 + u^2 + u + 1) (u^8 - u^7 + u^5 - u^4 + u^3 - u + 1) (t^4 + t^3 + t^2 + t + 1) \\
& (t^8 - t^7 + t^5 - t^4 + t^3 - t + 1)
\end{aligned}$$

$$M_L(t, u)_{16} = M_L(u, t)_{15}$$

The Poincaré series of the invariant ring is

$$\begin{aligned}
P_L(t, 0)_0 = P_L(0, t)_0 = & \frac{-t^{30} + t^{15} - 1}{(t-1)^3(t^2+t+1)^3(t^2+1)(t^4-t^2+1)(t^4+t^3+t^2+t+1)(t^8-t^7+t^5-t^4+t^3-t+1)(t+1)^2(t^2-t+1)^2}
\end{aligned}$$