BACCALAURÉAT – Session 2017

Epreuve de discipline Non Linguistique

Mathématiques/Anglais

Topic: functions

A bridge

Google Street View launches in 25 cities around Britain to give users a 360 degree close-up of where they live. For some it's a fascinating snapshot of modern Britain, in all its beauty and ugliness.
For others, it's a gross invasion of privacy that could leave homes vulnerable to crime and people open to embarrassment.
Street View was launched in America two years ago and has since been expanded to cities in France, Italy, Spain, Australia, New Zealand and Japan.
Google believes Street View will be popular with shoppers trying to find stores, drinkers looking for pubs, and house buyers wanting to find out more about neighbourhoods.
The service is free.
Despite Google's pledge to protect privacy, not all faces and number plates were blurred, and some people were easily recognisable.
'Privacy is really important to us,' they said. "We recognise that there have been concerns about that and we think we have addressed those concerns."
They added: "The images you see on Street View are the same images you would see if you were to walk or drive down the road yourself."

Questions

1. What's the text about? Have you ever been on this website?

2. This image of a bridge is issued from Google View.
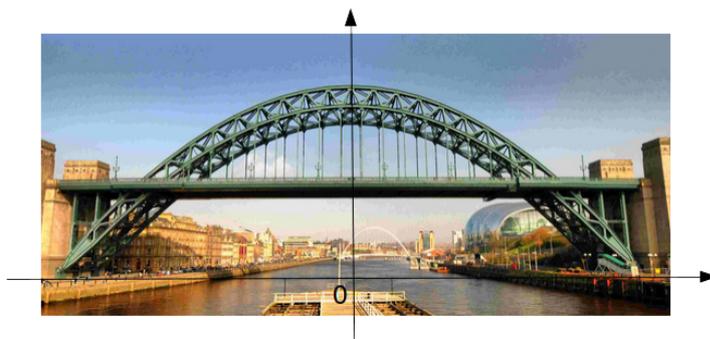   The rise of the arch is 59 meters, the length of the main arch, pier to pier, is 162 meters. The roadway is 26 meters above the river. The horizontal axis is where the river runs and the vertex of the arch is on the vertical axis.
   Assume that the arch can be modelised by a parabola.

   a) Find an equation of the curve of the arch.

   b) Determine the coordinates at the two points A and B, where the curve and the roadway intersect.

3. Do you think this website is an invasion of your privacy?