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Regulars



Bridging that gap: solution

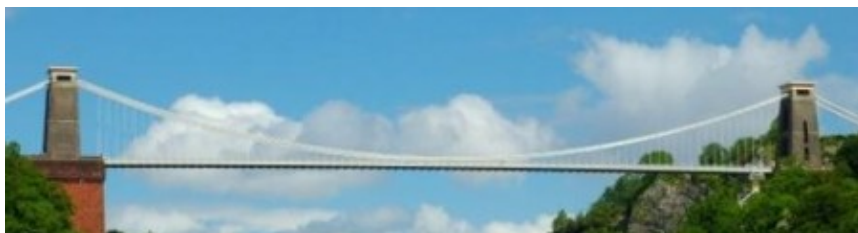
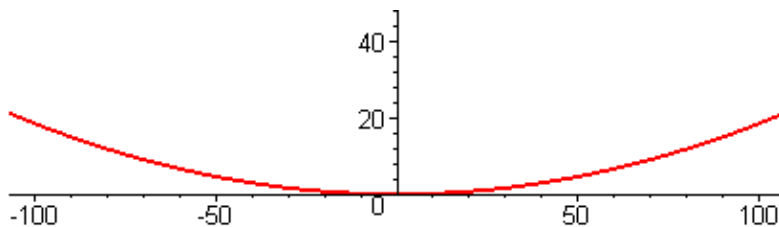
In [last issue's Outer space](#) we asked you to find the equation describing the [Clifton suspension bridge](#) in Bristol, using the fact that it spans 214 metres and is 21.3 metres high.

Recall that the bridge describes a parabola with equation $y = x^2/a$, so our aim is to find the number a . Now assuming that the lowest point of the bridge lies at the origin $(0,0)$, we see that the two points $(-107, 21.3)$ and $(107, 21.3)$ lie on the parabola. This gives:

$$21.3 = 107^2/a$$

and so $a = 107^2/21.3 = 537.5$

Here are the parabola and the bridge:



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Plus Magazine



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