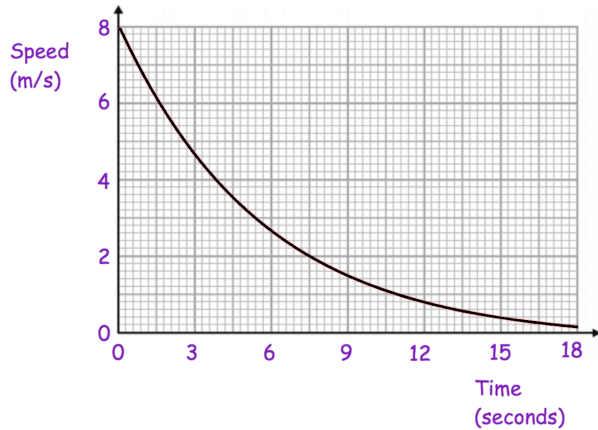
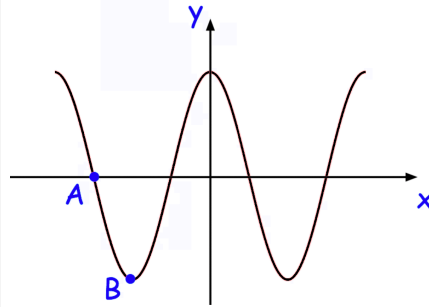




Here is a sketch of $y = \cos(x)$

Write down the coordinates of point A and point B



Work out an estimate for the distance travelled over the first 12 seconds of the journey.
Use 4 strips of equal width.

Find the coordinates where the line $y = x + 8$ and the curve $y = x^2 + 19x + 80$ intersect

Solve

$$\frac{8^{4+x}}{4^{5-x}} = 0.5$$