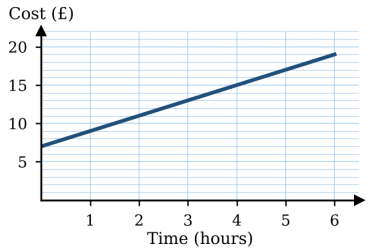
Day 285	B Tier 10-a-day
1 Solve $a + 4 = 15$	
2 Write 2116.8251 (a) correct to 1 decimal place, (b) correct to 2 significant figures.	
3 $\mathbf{a} = \begin{pmatrix} -5 \\ 3 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} 3 \\ 5 \end{pmatrix}$ Work out (a) $\mathbf{a} - \mathbf{b}$ (b) $3\mathbf{a} + 2\mathbf{b}$	
4 (a) Priya scores 10 out of 25 in a test. Write this as a percentage. (b) Write 80p as a percentage of £4.	
5 A cube has side length 3 cm. Work out the total surface area of the cube.	

Day 285 **B Tier 10-a-day**

6 A plumber charges a call-out fee plus a cost for each hour of work.
The graph shows the total cost.
(a) Write down the fixed charge.
(b) Work out the cost for each hour.



7 A bar of lead has a density of 11.3 g/cm^3 and a mass of 678 g.
Work out its volume.

8 Write each answer as a single power of 2.
(a) $(2^2)^3$
(b) $2^6 \times 2^3 \div 2^3$

9 The equation $x^3 + 2x = 113$ has a solution between 4 and 5. (Calculator)
Use trial and improvement to find this solution.
Give your answer correct to 1 decimal place.

10 A bag contains 7 green beads and 3 yellow beads.
Gita takes one at random, replaces it, then takes a second.
Work out the probability that the two are the same colour.