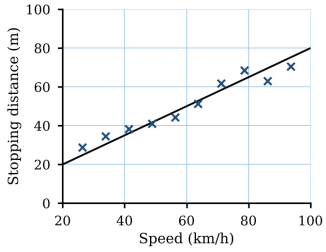
Day 171	B Tier 10-a-day
1 Write down the number of edges and vertices of a cube.	
2 Here is a number machine. Input → + 6 → − 2 → Output (a) The input is 7. Work out the output. (b) The output is 7. Work out the input.	
3 The area of a circle is 25 m^2. (Calculator) Work out the radius of the circle. Give your answer correct to 1 decimal place.	
4 The scatter graph shows information about speed and stopping distance. A line of best fit is drawn. (a) Describe the correlation. (b) Use the line of best fit to estimate the stopping distance when speed is 80.  	
5 The number of members of a club goes from 250 to 225. Work out the percentage decrease.	

Day 171	B Tier 10-a-day
6 (a) The point P(−6, −2) is translated by the vector $\begin{pmatrix}3\\4\end{pmatrix}$. Write down the coordinates of the image. (b) The point P(−6, −2) is reflected in the line y = −x. Write down the coordinates of the image.	
7 $A = 2^2 \times 3 \times 5 \times 7$ $B = 2 \times 7^3$ Write down, as a product of prime factors, (a) the HCF of A and B (b) the LCM of A and B	
8 Line L has equation y = −2x − 1 Line M is parallel to line L and passes through the point (−3, 5). Find the equation of line M.	
9 The ratio of cats to dogs among the pets at a rescue centre is 8 : 3. There are 40 cats. How many dogs are there?	
10 Expand and simplify (x − 3)(x − 5)	