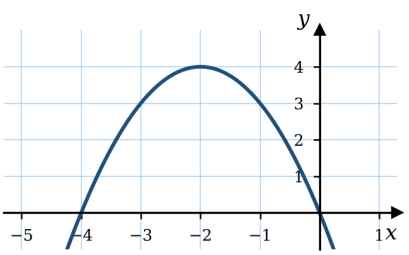
Day 181	B Tier 10-a-day
1 A bag has 30 counters. $\frac{1}{2}$ of the counters are red. How many are not red?	
2 A runner travels 24 km in 3 hours. Work out its average speed in km per hour.	
3 An open box (no lid) is a cuboid measuring 13 cm by 6 cm by 2 cm. The base is 13 cm by 6 cm. Work out the total area of card needed to make the box.	
4 Write each number as an ordinary number. (a) 5.7×10^3 (b) 9.5×10^{-4}	
5 The diagram shows the graph of $y = -x^2 - 4x$ (a) Write down the solutions of $-x^2 - 4x = 0$ (b) Write down the coordinates of the maximum point of the graph. 	

Day 181 **B Tier 10-a-day**

6 Triangle ABC has sides of 8 cm and 9 cm, and an angle of 45° that is not between them.
Triangle XYZ has sides of 8 cm and 9 cm, and an angle of 45° between them.
Are the two triangles congruent?
Give a reason for your answer.

7 Make n the subject of the formula

$$C = \frac{n + 5}{3}$$

8 The table shows the goals scored in each match by a team.
(a) Write down the mode.
(b) Work out the median.

Goals	2	3	4	5	6	7
Frequency	3	8	3	2	7	9

9 A straight line has equation $y = x - 3$
(a) Write down the coordinates of the point where the line crosses the y-axis.
(b) Work out the coordinates of the point where the line crosses the x-axis.

10 The cumulative frequency graph shows the times taken by 40 students to complete a puzzle.
(a) Use the graph to estimate the median.
(b) Work out an estimate for the interquartile range.

