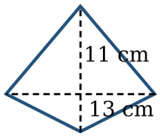
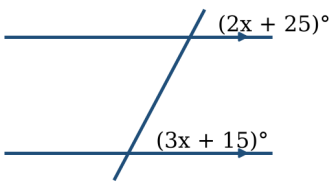
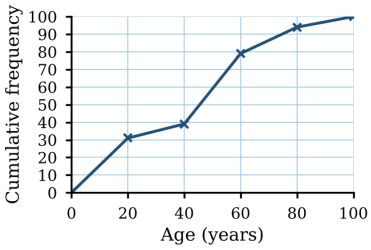
Day 258	A Tier 10-a-day
1 (a) Write 50 and 60 as products of prime factors. (b) Find the highest common factor (HCF) and the lowest common multiple (LCM) of 50 and 60.	
2 The diagram shows a kite. The diagonals are 13 cm and 11 cm and cross at right angles. Work out the area of the kite. The diagram is not drawn accurately. 	
3 Solve $2x^2 - 7x + 5 = 0$	
4 The diagram shows two parallel lines crossed by a straight line. (a) Work out the value of x. (b) Work out the size of the angle marked (2x + 25)°. The diagram is not drawn accurately. 	
5 y is inversely proportional to x. When x = 1, y = 8. (a) Find a formula for y in terms of x. (b) Work out the value of y when x = 2.	

Day 258 **A Tier 10-a-day**

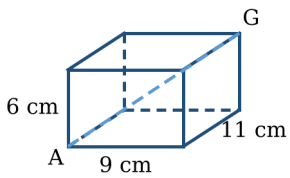
6 The population of a village is increased by 5%.
The new population is then increased by 15%.
Work out the overall percentage change.

7 Rationalise the denominator of $\frac{18}{\sqrt{20}}$
Give your answer in its simplest form.

8 The cumulative frequency graph shows information about the age of 100 visitors.
Use the graph to find an estimate for
(a) the median,
(b) the number of visitors with a age greater than 40 years.



9 The diagram shows a cuboid.
Work out the length of the diagonal AG.
(Calculator)
Give your answer to 3 significant figures.
The diagram is not drawn accurately.



10 Make x the subject of $y = \frac{5x - 6}{-x - 5}$