Day 139	B Tier 10-a-day
1 Write down the number of edges and vertices of a cylinder. Count curved faces and curved edges as well.	
2 Write down (a) the square root of 121 (b) the cube root of 343	
3 Two rectangles are joined to make a shape. The first is 9 cm by 6 cm. The second is 3 cm by 12 cm. Work out the total area of the shape.	
4 On a map, 1 cm represents 0.25 km. A lake is 25 cm long on the map. Work out the real length of the lake.	
5 (a) Solve $2 < 2x + 2 < 6$ (b) Write down the integer values of x that satisfy this inequality.	

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6 Work out $2\frac{5}{6} + 2\frac{5}{6}$

Give your answer as a mixed number.

7 The probability that a biased coin lands on heads is 10%.
Work out how many times you would expect this to happen in 150 throws of the coin.

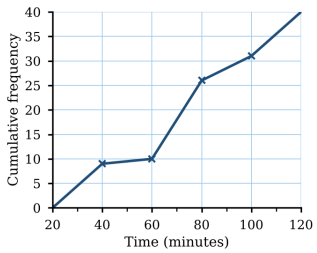
8 A fuel tank is $\frac{1}{3}$ full.

90 litres of fuel are added.

The fuel tank is now $\frac{2}{3}$ full.

Work out the capacity of the fuel tank.

9 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.



10 The equation $x^3 + 2x = 15$ has a solution between 2 and 3. (Calculator)
Use trial and improvement to find this solution.
Give your answer correct to 1 decimal place.