Day 224	B Tier 10-a-day
1 f(x) = 2x + 7 (a) Work out f(8) (b) Solve f(x) = 9	
2 Two rectangles are joined to make a shape. The first is 4 cm by 8 cm. The second is 11 cm by 5 cm. Work out the total area of the shape.	
3 A cyclist travels 70 km in 3 hours 30 minutes. Work out its average speed in km per hour.	
4 A taxi firm charges £7 plus £12 for each mile travelled. (a) Work out the total cost for 5 miles. (b) The total cost is £91. Work out the number of miles.	
5 Write each number in standard form. (a) 5,200,000 (b) 0.0000086	

Day 224	B Tier 10-a-day
6 A drum has radius 6 m and height 16 m. Work out its volume. Give your answer in terms of π.	
7 M is the midpoint of AB. A is the point (5, 8) and M is the point (4, 5). Find the coordinates of B.	
8 50 snails in a lake are caught, tagged and returned to the lake. Later, a sample of 30 snails is caught and 2 of them are tagged. Estimate the total number of snails in the lake.	
9 The length of a rectangle is 8 cm and its width is 12 cm. Both measurements are correct to the nearest cm. Work out the upper bound for the perimeter of the rectangle.	
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. 	