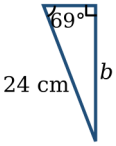
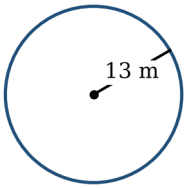
Day 151	B Tier 10-a-day
1 A coat costs £60. In a sale the price is reduced by 10%. (a) Work out the new price. (b) A car is worth £6000. Its value goes down by 25% in a year. Work out its new value.	
2 Calculate the length of b. (Calculator) Give your answer correct to 1 decimal place. The diagram is not drawn accurately. 	
3 The point (5, k) lies on the line $y = -4x - 5$ Work out the value of k.	
4 $\mathbf{a} = \begin{pmatrix} -4 \\ 1 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} 7 \\ 2 \end{pmatrix}$ Work out (a) $2\mathbf{a} + \mathbf{b}$ (b) $3\mathbf{a} - 2\mathbf{b}$	
5 Zara has $\frac{1}{2}$ of £160. Mohammed has 45% of £40. Who has more money? You must show your working.	

Day 151	B Tier 10-a-day
6 The diagram shows a circle with radius 13 m. Work out the circumference of the circle. Give your answer in terms of π. The diagram is not drawn accurately. 	
7 Town A has a population of 800. Its area is 4 km^2. Work out the population density. Give your answer in people per km^2.	
8 A fuel tank is $\frac{2}{5}$ full. 30 litres of fuel are added. The fuel tank is now $\frac{1}{2}$ full. Work out the capacity of the fuel tank.	
9 A skier travels at 10 metres per second. Work out this speed in kilometres per hour.	
10 Show that $(n + 3)^2 - (n - 3)^2$ is a multiple of 12 for any whole number n.	