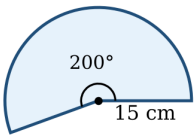
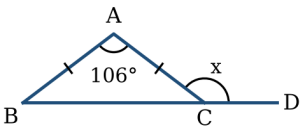
Day 72	A Tier 10-a-day
1 (a) Show that $0.\dot{4}\dot{0} = \frac{40}{99}$ (b) Hence write $2.\dot{4}\dot{0}$ as a mixed number in its simplest form.	
2 Factorise $x^2 - 14x + 48$	
3 Here are the ages, in years, of 11 people. 54 14 27 25 78 74 41 7 20 6 45 (a) Work out the median. (b) Work out the interquartile range.	
4 The diagram shows a sector of a circle of radius 15 cm. Work out the area of the sector. Give your answer in terms of π. The diagram is not drawn accurately. 	
5 The price of a monthly gym fee increases by 12%. The new price is £896. Work out the price before the increase.	

Day 72	A Tier 10-a-day
6 ABC is an isosceles triangle with AB = AC. BCD is a straight line. Angle BAC = 106°. Work out the size of angle x. The diagram is not drawn accurately. 	
7 y = 0.6 is rounded to 1 significant figure. Write down the error interval for y.	
8 A rectangle has width x cm and length (x + 1) cm. The area of the rectangle is 30 cm^2. (a) Show that $x^2 + 1x - 30 = 0$ (b) Work out the value of x.	
9 Make x the subject of $y = 4x^2 + 4$	
10 The diagram shows a triangular prism. The cross-section is a right-angled triangle. Work out the total surface area of the prism. The diagram is not drawn accurately. 