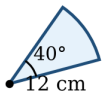
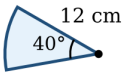
Day 17	A Tier 10-a-day
1 The two triangles are similar. Work out the value of x. The diagrams are not drawn accurately. 	
2 A sprinter travels at 12 m/s. Work out this speed in kilometres per hour.	
3 Work out $4\frac{3}{7} + 3\frac{1}{3}$ Give your answer as a mixed number in its simplest form.	
4 The diagram shows a sector of a circle of radius 12 cm. Work out the area of the sector. Give your answer in terms of π. The diagram is not drawn accurately. 	
5 t = 1.24 has been truncated to 2 decimal places. Write down the error interval for t.	

Day 17	A Tier 10-a-day
6 Prove that the difference between the squares of two consecutive integers is always odd.	
7 The diagram shows a sector of a circle of radius 12 cm. Work out the perimeter of the sector. Give your answer in terms of π. The diagram is not drawn accurately. 	
8 In a sale, all prices are reduced by 6%. (Calculator) A jacket costs £70.50 in the sale. Work out the original price of the jacket.	
9 y is inversely proportional to the square of x. When x = 1, y = 16. (a) Find a formula for y in terms of x. (b) Work out the value of y when x = 4.	
10 A block rests on an area of 2.5 m^2 of the floor. The pressure on the floor is 20 N/m^2. Work out the force exerted by the block.	