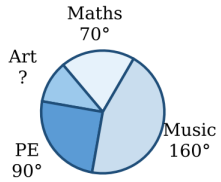
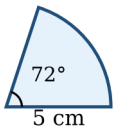
Day 223	B Tier 10-a-day
1 A bag contains 8 red sweets, 8 green sweets and 8 orange sweets. One is taken at random. Find the probability that it is green.	
2 Write down the number of faces, edges and vertices of a cube.	
3 Work out (a) $\frac{5}{9} + \frac{5}{12}$ (b) $\frac{4}{9} - \frac{3}{10}$ Give each answer in its simplest form.	
4 A rectangle has length (3x + 1) cm and width (x + 2) cm. The perimeter of the rectangle is 70 cm. (a) Work out the value of x. (b) Work out the area of the rectangle.	
5 A jacket costs £250. In a sale the price is reduced by 35%. (a) Work out the new price. (b) A car is worth £12,000. Its value goes up by 20% in a year. Work out its new value.	

Day 223 **B Tier 10-a-day**

6 The pie chart shows the favourite choices of 360 people.
The angle for Art is not shown.
Work out how many people chose Art.



7 The diagram shows a sector of a circle with radius 5 cm and angle 72°.
Work out the length of the arc of the sector.
Give your answer in terms of π.
The diagram is not drawn accurately.



8 Show that the sum of two consecutive even numbers is always 2 more than a multiple of 4.

9 In a room, the ratio of cats to dogs is 2 : 5.
There are 20 dogs.
More cats join so that there are equal numbers of cats and dogs.
How many cats join?

10 Solve the simultaneous equations
$x - 6y = 17$
$2x + 3y = -11$