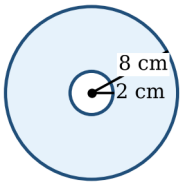
Day 239	B Tier 10-a-day
1 The probability that a biased coin lands on heads is 0.8. Work out how many times you would expect this to happen in 240 throws of the coin.	
2 The scale of a map is 1 : 1000. A church and a school are 2.5 cm apart on the map. Work out the real distance between them. Give your answer in metres.	
3 Work out the value of $8x + 1$ when $x = 6$	
4 The bearing of Y from X is 330°. Work out the bearing of X from Y.	
5 The number of members of a club goes from 300 to 405. Work out the percentage increase.	

Day 239	B Tier 10-a-day
6 Work out the gradient of the straight line that passes through the points (1, 1) and (3, −7).	
7 The diagram shows two circles with the same centre. The radius of the larger circle is 8 cm. The radius of the smaller circle is 2 cm. Work out the area of the shaded region. Give your answer in terms of π. The diagram is not drawn accurately. 	
8 The time of a race is 1.35 seconds, correct to 2 decimal places. Write down the error interval for the time. Use the letter t.	
9 A lorry travels at 30 km/h for 1.5 hours and then at 60 km/h for 1 hour. Work out its average speed for the whole journey.	
10 A takeaway sells burgers and portions of chips. 1 burger and 2 portions of chips cost £8. 4 burgers and 2 portions of chips cost £20. Work out the cost of one burger and the cost of one portion of chips.	