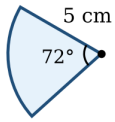
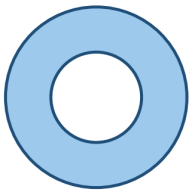
Day 59	A Tier 10-a-day
1 Write these numbers in order of size, starting with the smallest. 0.22 50% 79% $\frac{1}{4}$	
2 Tom is x years old. His dad is 3 times as old as Tom, plus 2 years. The sum of their ages is 46 years. Work out how old his dad is.	
3 Zara buys a games console for £200 and sells it making a profit of 35%. Work out the selling price.	
4 The diagram shows a sector of a circle of radius 5 cm. Work out the length of the arc of the sector. Give your answer in terms of π. The diagram is not drawn accurately. 	
5 Here are the first five terms of a quadratic sequence. 0, 6, 14, 24, 36 (a) Find an expression for the nth term. (b) Work out the 15th term.	

Day 59 **A Tier 10-a-day**

6 A culture starts with 2500 bacteria. (Calculator)
The number of bacteria increases by 5% every hour.
Work out the number of bacteria after 2 hours.
Give your answer to the nearest whole number.

7 The diagram shows the cross-section of a metal pipe.
The outer radius is 8 cm and the inner radius is 4 cm.
The pipe is 15 cm long.
Work out the volume of metal used. Give your answer in terms of π.



8 The table gives information about 116 measurements.
A histogram is drawn using this information.
(a) Work out the missing frequency.
(b) Work out the height of the bar for the class $55 < m \leq 75$.

Mass, m (g)	Frequency
$10 < m \leq 40$	?
$40 < m \leq 55$	18
$55 < m \leq 75$	56
$75 < m \leq 95$	12

9 A rectangular table top is 300 cm by 40 cm.
Work out its area in m^2.

10 Here are the scores of 11 students in a test.
15 50 74 8 56 59 57 66 64 60 33
(a) Work out the median.
(b) Work out the interquartile range.