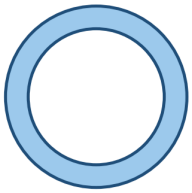
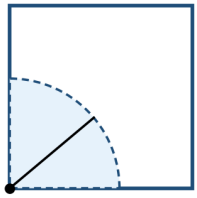
Day 180	A Tier 10-a-day
1 (a) Change 1.2 cm^2 to mm^2. (b) Change 450 mm^2 to cm^2.	
2 The sum of 4 consecutive whole numbers is 22. Work out the largest of the numbers.	
3 In a sale, all prices are reduced by 25%. A tent costs £60 in the sale. Work out the original price of the tent.	
4 The diagram shows the cross-section of a metal pipe. The outer radius is 4 cm and the inner radius is 3 cm. The pipe is 12 cm long. Work out the volume of metal used. Give your answer to 3 significant figures. (Calculator) 	
5 The mean of the five numbers 4, 23, x, 10, 11 is 13. Work out the value of x.	

Day 180 **A Tier 10-a-day**

6 Expand and simplify $(3 + \sqrt{2})^2$
Give your answer in the form $a + b\sqrt{c}$

7 A goat is tied by a rope of length 6 m to the corner of a square field of side 10 m.
The goat can graze inside the field only.
Work out the area it can graze. Give your answer in terms of π.
The diagram is not drawn accurately.



8 A is the point (0, 1) and B is the point $(-6, 3)$.
Find the equation of the perpendicular bisector of AB.

9 Write as a single fraction in its simplest form

$$\frac{x + 2}{6} - \frac{x - 4}{5}$$

10 The diagram shows a cuboid.
Work out the length of the diagonal AG.
The diagram is not drawn accurately.

