Mathematics

Fractions of a circle

Mr Coward

Try this

Circumference = 60 cm
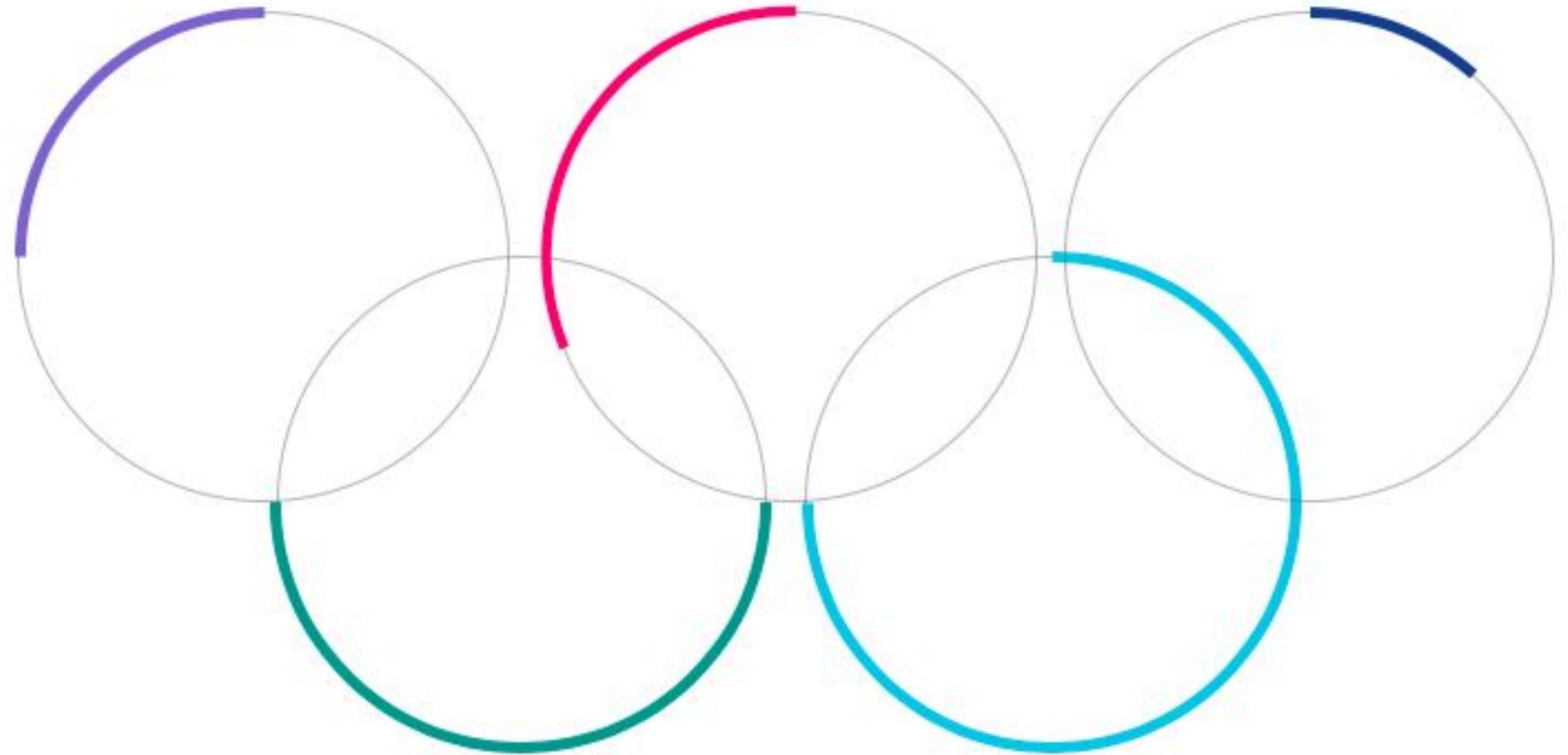
Estimate the length of each of the bold lines

Can you estimate the circumference of the circle?

Independent task

1) If the diameter of a full circle is 240mm, find the arc length for the rest of the shapes in mm.

Give your answers in terms of π. Try this first without a calculator.

180°

45°

135°

225°

60°

105°
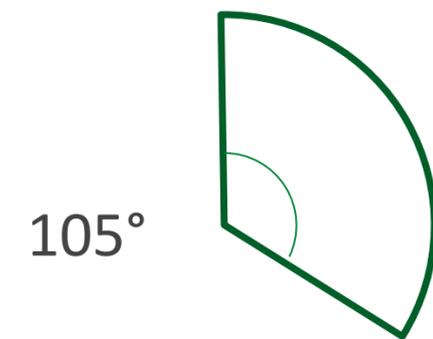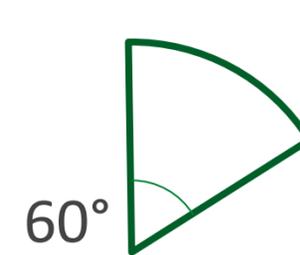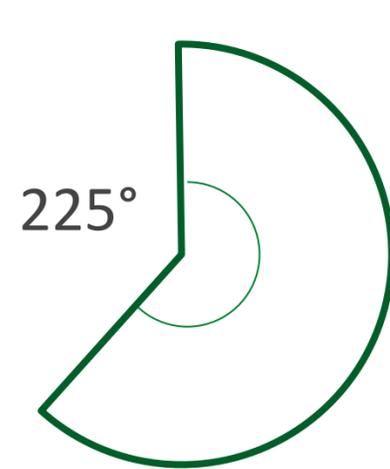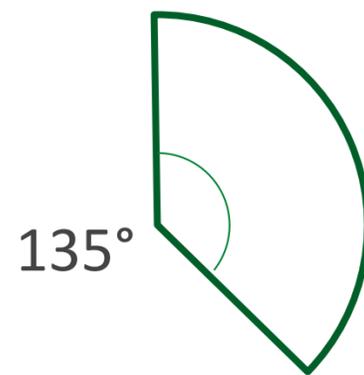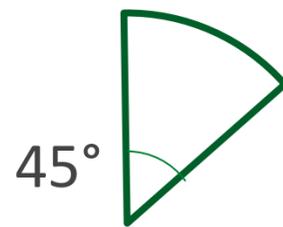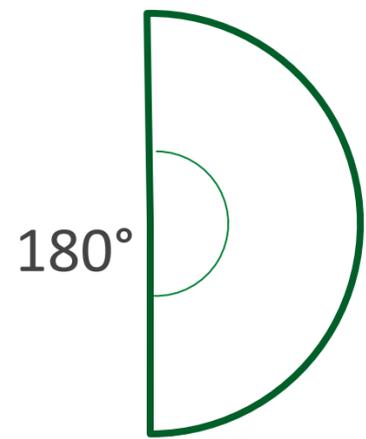
2) Find the arc length for each of these shapes. (Use a calculator and give your answers to 2 d.p.)

54° 3cm

111°
5 cm

155°
21 cm

9 cm
241°

42° 5 cm

92°
6 cm
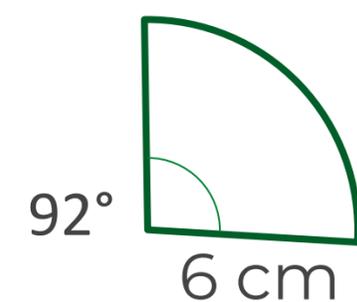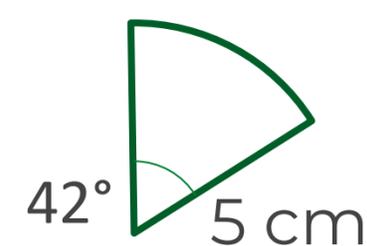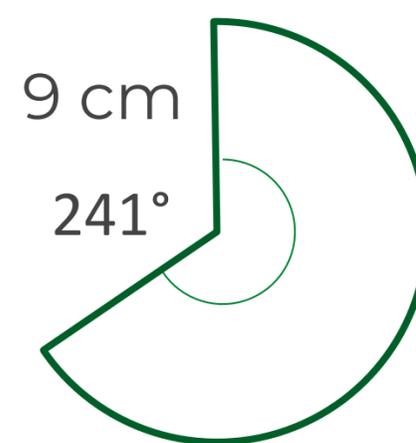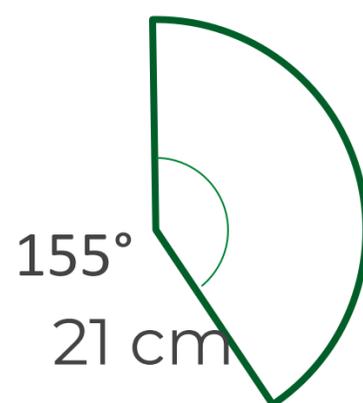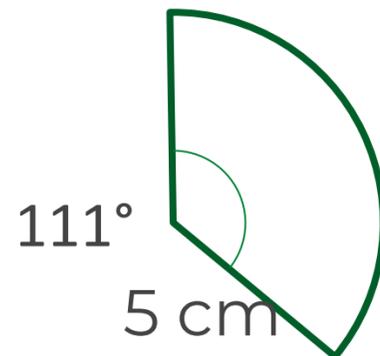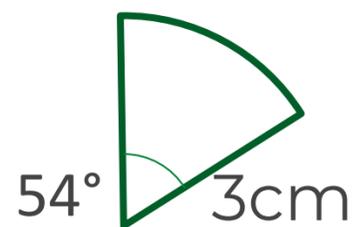
Explore
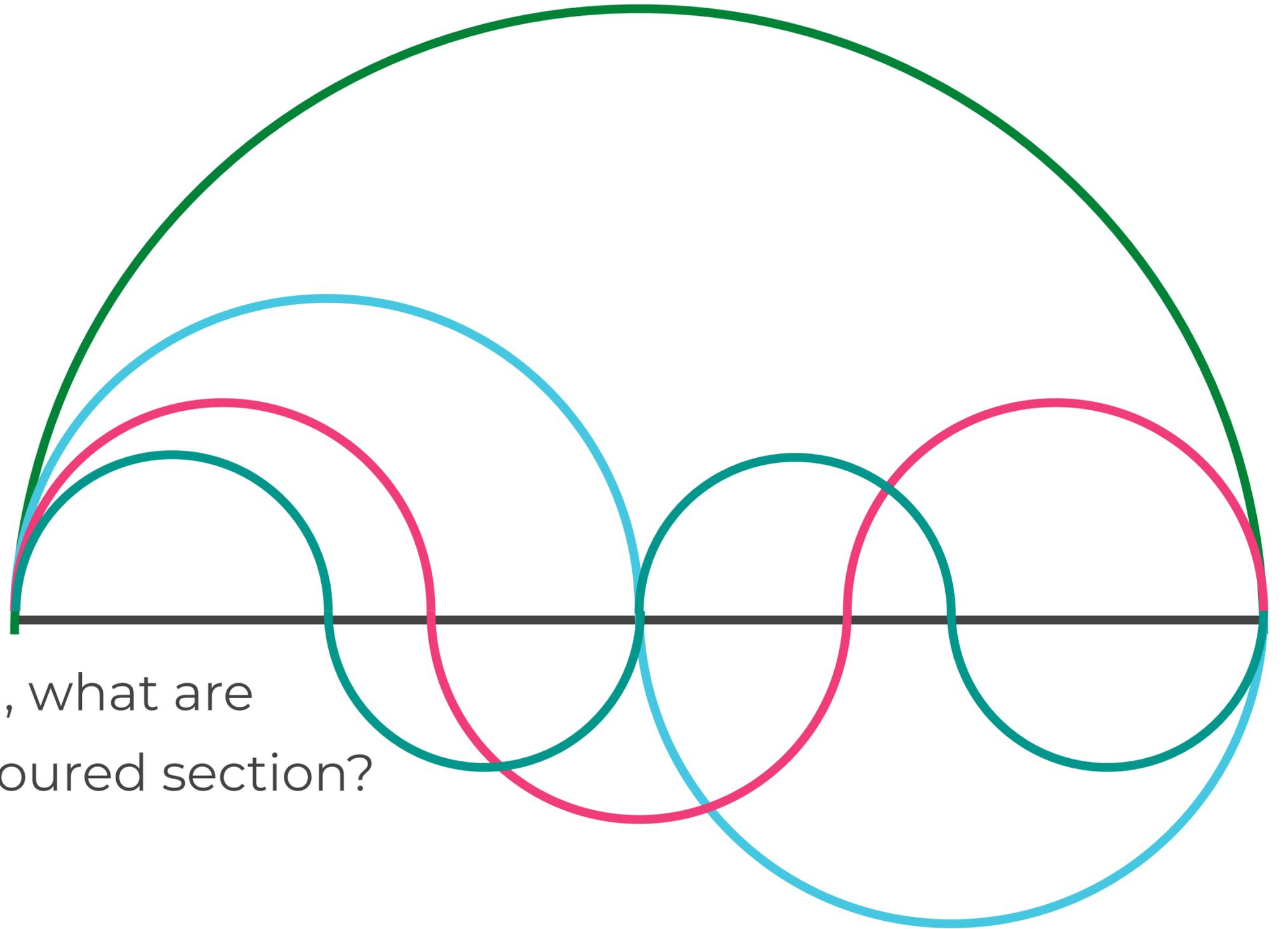
If the grey line is 30 cm, what are the lengths of each coloured section?

What do you notice?