

Summer Term Maths Year 10

Area of a sector

Day

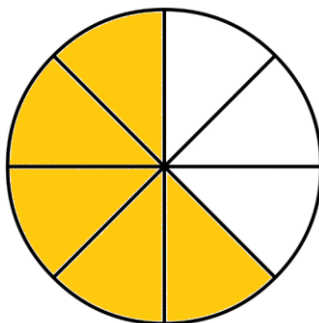
3

Week 4

1

The area of this circle is 80 cm^2 .

The circle is divided into 8 equal parts.

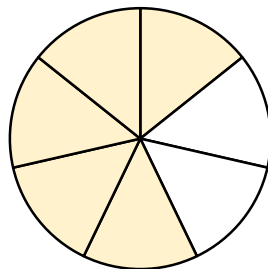


(a) What is the area of the shaded sector? 50 cm^2

(b) What is the area of the non shaded sector? 30 cm^2

2

The area of this circle is $56\pi \text{ cm}^2$. The circle is divided into 7 equal parts.



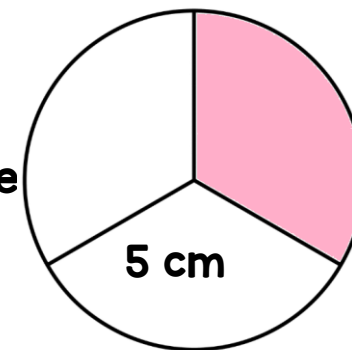
What is the area of the shaded part of the circle in terms of pi? $40\pi \text{ cm}^2$

3

The radius of a circle is 5 cm. It has been divided into 3 equal sectors.

Find the area of one of the sectors to 3 s.f.

26.2 cm^2

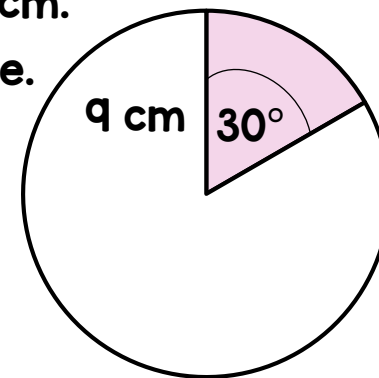


4

The radius of a circle is 9 cm. Here is a sector of a circle.

(a) What fraction of the circle is shaded? $\frac{1}{12}$

(b) Find the area of the shaded sector to 3 s.f. 21.2 cm^2



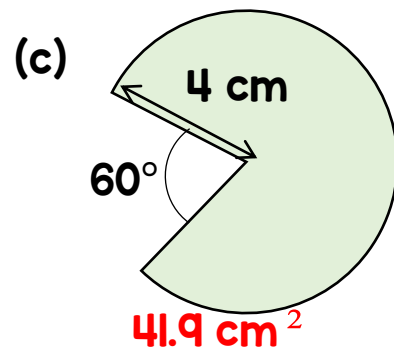
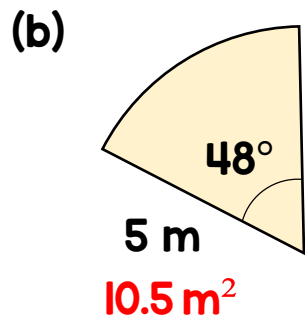
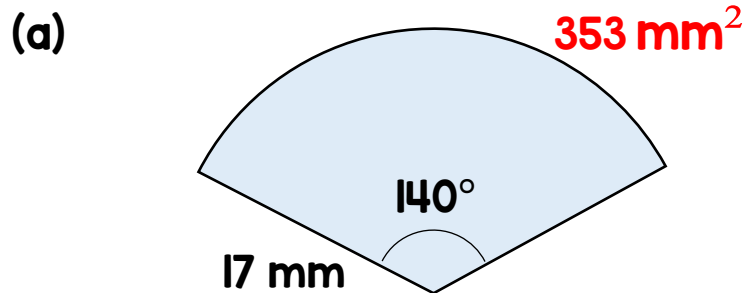
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Area of a sector

Day 3

Week 4

5 Find the area of each of these sectors.
Give your answers to 3 s.f.



(d) Work out the area of (b) in terms of pi.

$\frac{10}{3} \pi \text{ m}^2$

6 A sector has an area of 60 cm^2

(a) Find the angle of the sector if the radius is 8 cm. 107°

(b) Find the radius if the angle of the sector is 72° . 9.77 cm

7 A windscreen wiper has a length of 40 cm and turns through an angle of 105° . The windscreen has an area of 0.2 m^2 . What percentage of the windscreen is cleared? 73%

