



Name: _____ **Date:** _____ **Score:** _____ / 43

- 1** The diagram shows a circle with centre O .
- Write down the mathematical name of the straight line P , which touches the circle at one point.
 - Write down the mathematical name of the straight line Q .
 - Write down the mathematical name of the shaded region R .
 - The radius of a different circle is 4.5 cm. Write down its diameter.

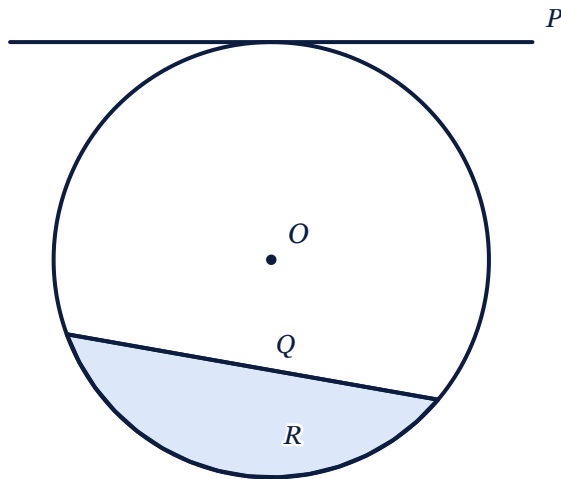


Diagram NOT accurately drawn

(4 marks)

Answer _____

- 2** A circular coaster has a diameter of 10 cm.
- Work out the circumference of the coaster.
 - Work out the area of the coaster.

Give each answer correct to 1 decimal place.

(3 marks)

Answer _____

- 3** A circle has diameter 18 cm.
- Work out the circumference of the circle. Give your answer in terms of π .
 - Work out the area of the circle. Give your answer in terms of π .

(3 marks)

Answer _____

- 4** The circumference of a circle is 14π cm.
- Work out the area of the circle. Give your answer in terms of π .

(4 marks)

Answer _____

- 5**
- A bicycle wheel has a circumference of 88 cm. Work out its diameter.
 - A circular rug has an area of 154 cm^2 . Work out its radius.

Give each answer correct to 1 decimal place.

(4 marks)

Answer _____

6

Shape *A* is a semicircle with diameter 12 cm. Shape *B* is a quarter circle with radius 8 cm.

- Work out the area and the perimeter of shape *A*.
- Work out the area and the perimeter of shape *B*.

Give your answers correct to 1 decimal place.

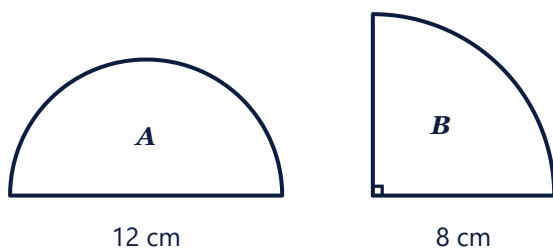


Diagram NOT accurately drawn

(4 marks)

Answer

7

A circle of radius 5 cm is drawn inside a square with sides of length 10 cm, so that the circle touches all four sides of the square.

The region inside the square but outside the circle is shaded.

Work out the shaded area. Give your answer correct to 1 decimal place.

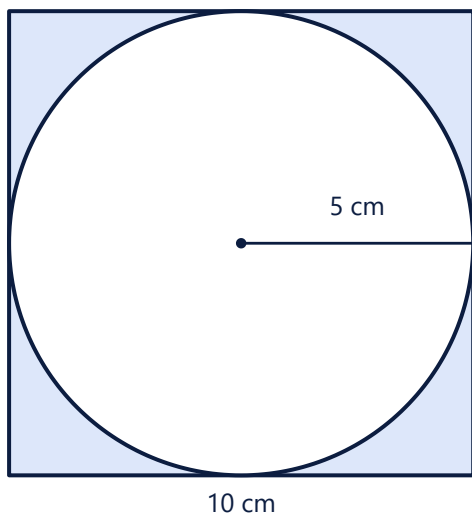


Diagram NOT accurately drawn

(4 marks)

Answer

8

The diagram shows a sector of a circle with radius 9 cm and angle 100° .

Work out the area of the sector. Give your answer correct to 1 decimal place.

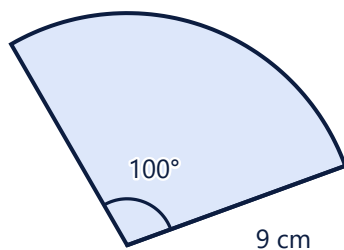


Diagram NOT accurately drawn

(2 marks)

Answer

9

A slice of a round cheese is a sector of a circle with radius 12 cm and angle 75° .

- Work out the length of the curved edge (the arc) of the slice.
- Work out the perimeter of the slice.

Give your answers correct to 1 decimal place.

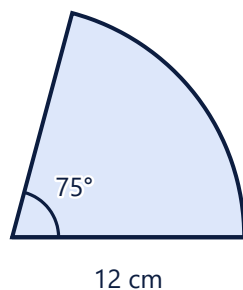


Diagram NOT accurately drawn

(3 marks)

Answer _____

- 10 A circular pond has radius 3 m.

The pond is surrounded by a path of constant width 1 m.

Calculate the area of the path. Give your answer correct to 3 significant figures.

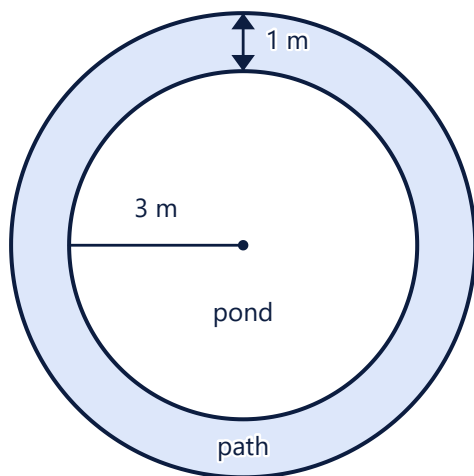


Diagram NOT accurately drawn

(4 marks)

Answer _____

- 11 A sector of a circle has angle 45° .

The arc length of the sector is 3π cm.

Work out the area of the sector.

Give your answer in terms of π .

(4 marks)

Answer _____

12

A school field is a rectangle 100 m long and 60 m wide with a semicircle on each of the two short ends.

- Work out the perimeter of the field.
- Work out the area of the field.

Give your answers correct to 1 decimal place.

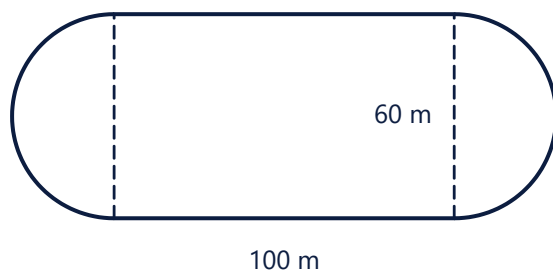


Diagram NOT accurately drawn

(4 marks)

Answer _____

End of questions | Total 43 marks