



SUCCESS CRITERIA

All students should be able to calculate the area and circumference of a circle.

Most students should be able to calculate the area and perimeter of a semi-circles and quarter circles.

Some students should be able to calculate the area and perimeter of compound shapes involving circles.

COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

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KEYWORDS:

Circle, area, circumference, perimeter, radius, diameter, compound shape, π

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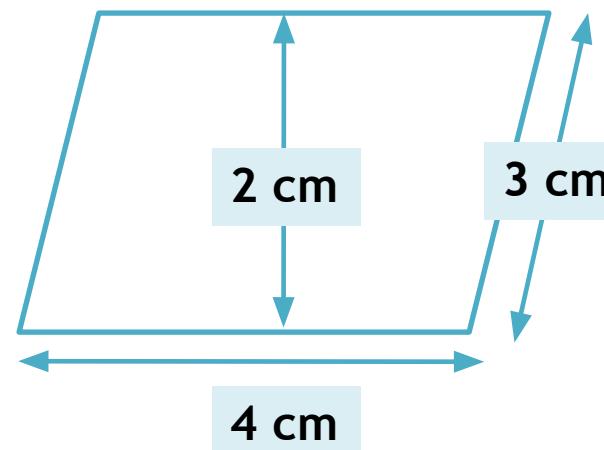
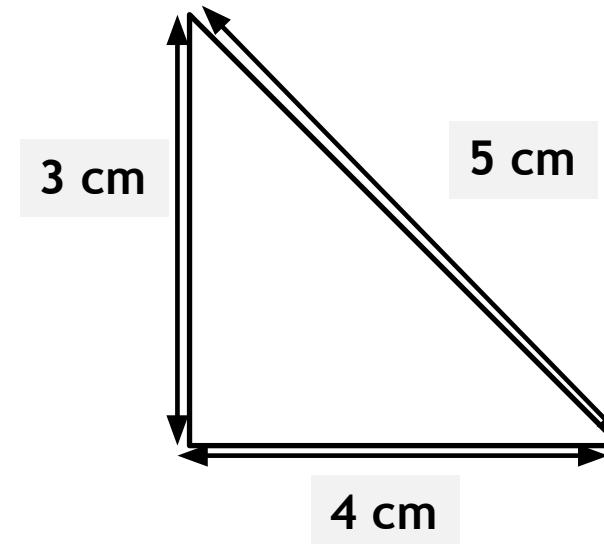
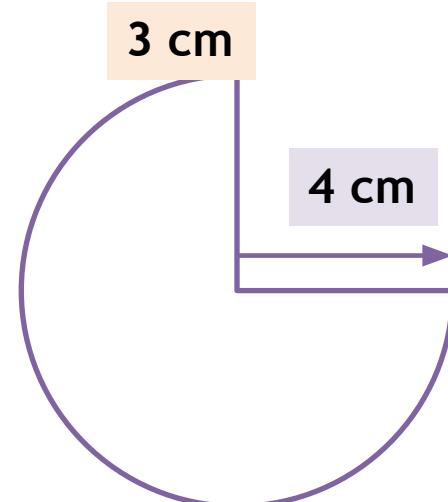
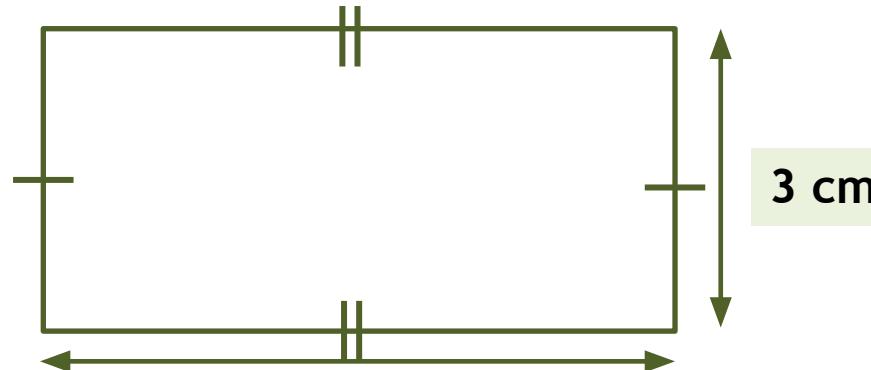
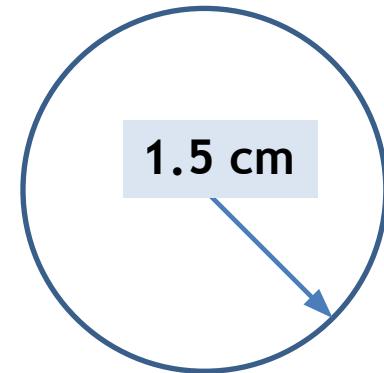
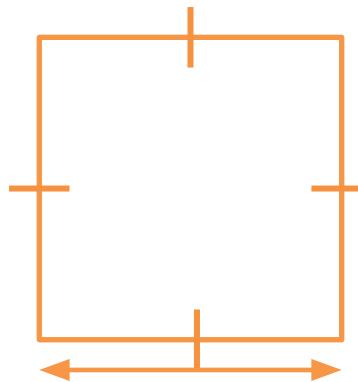
Circle, area, circumference, perimeter, radius, diameter, compound shape, π



MENTAL MATH

LO: To find the area and perimeter of compound shapes involving circles.

Find the perimeters and areas of the following shapes. The shapes are not to scale.

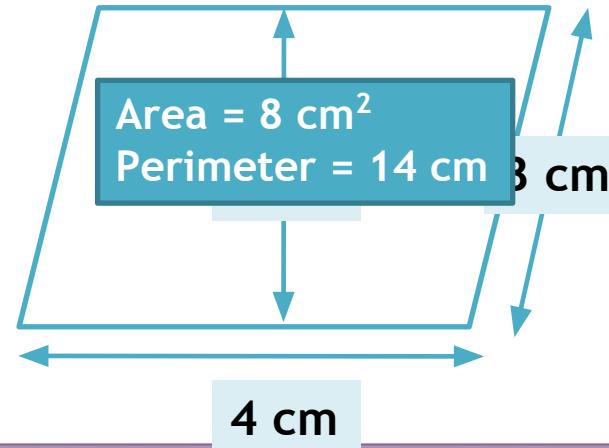
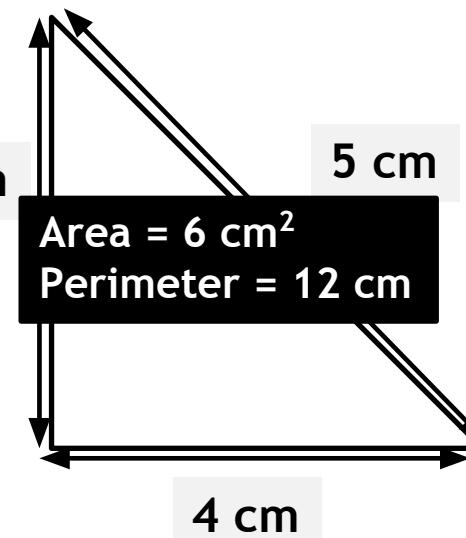
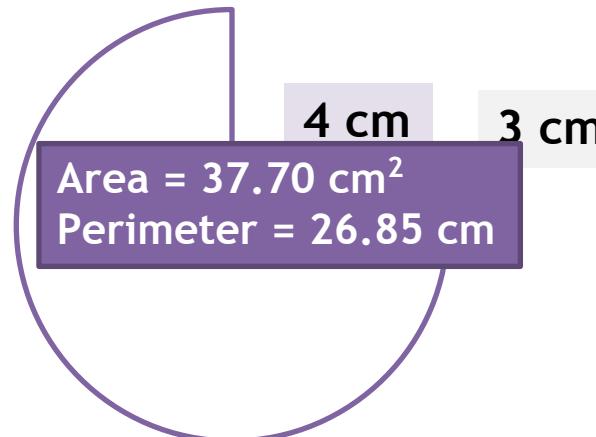
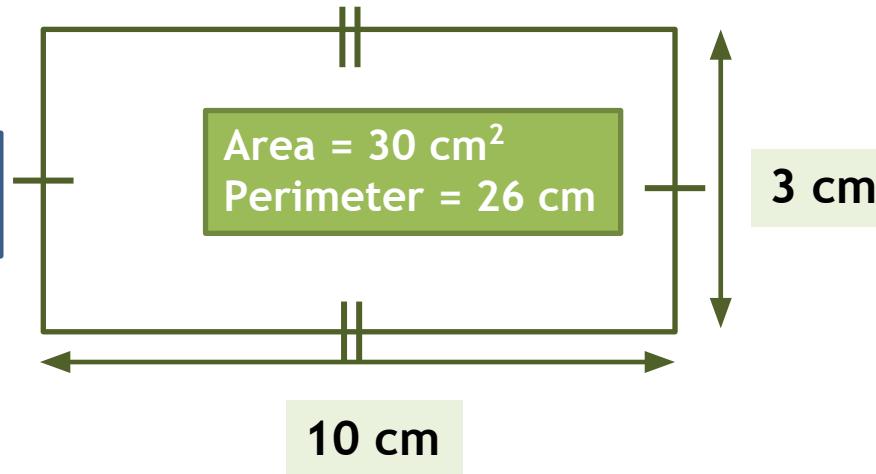
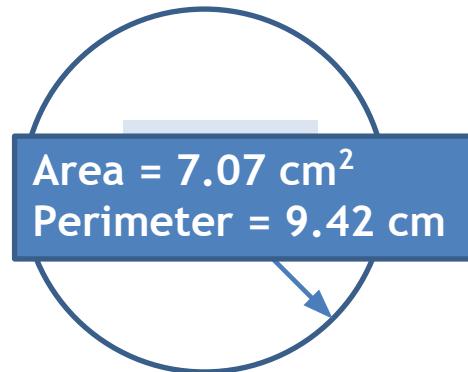
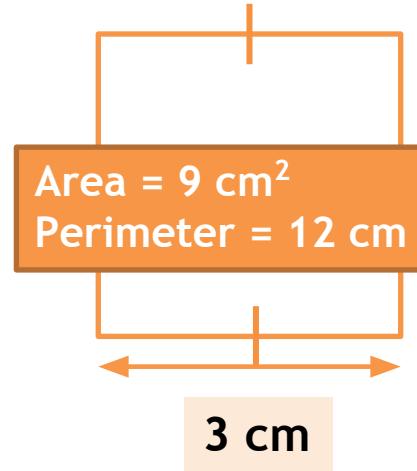




COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Find the perimeters and areas of the following shapes. The shapes are not to scale.

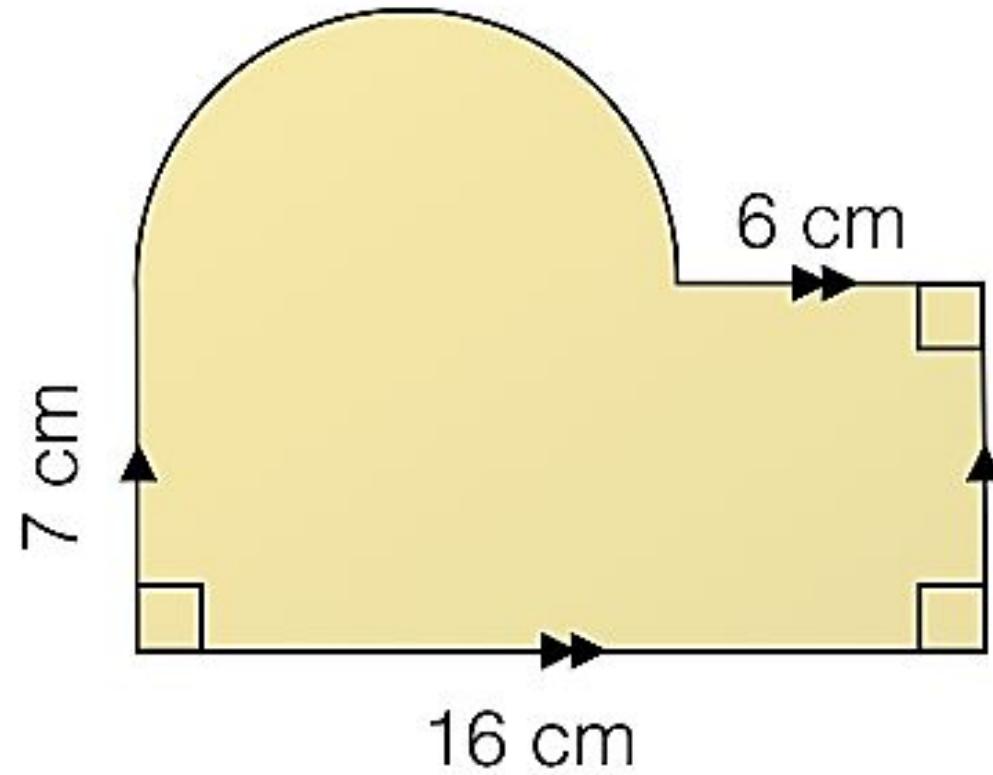




STARTER

LO: To find the area and perimeter of compound shapes involving circles.

Find **a)** the perimeter in cm and **b)** the area in cm^2 of each of the following shapes.
Each shape is made up of a polygon and a sector of a circle.

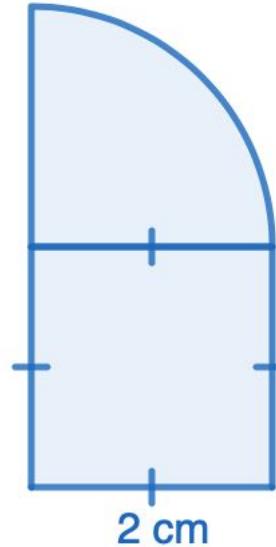




My/Your Turn

LO: To find the area and perimeter of compound shapes involving circles.

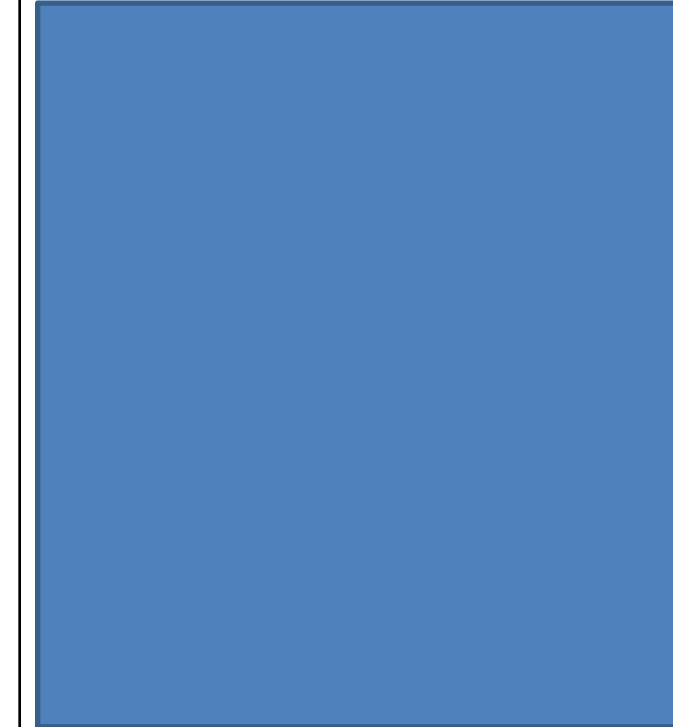
Example



Find the area and perimeter of this shape

Thoughts?

Your Turn

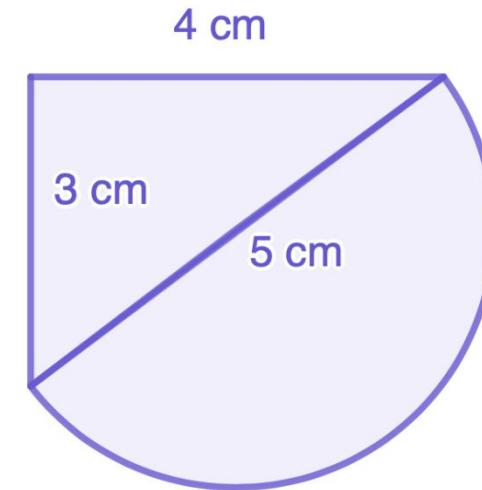
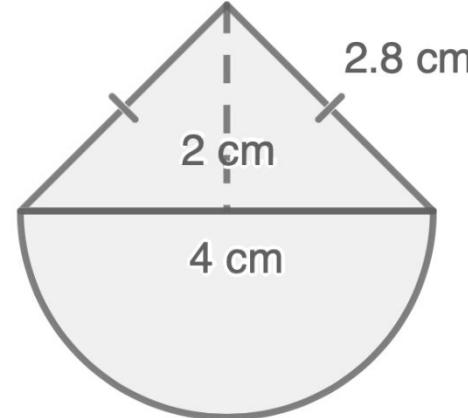
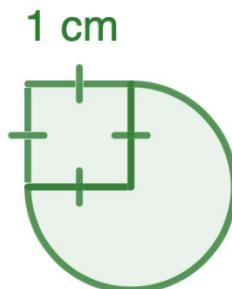
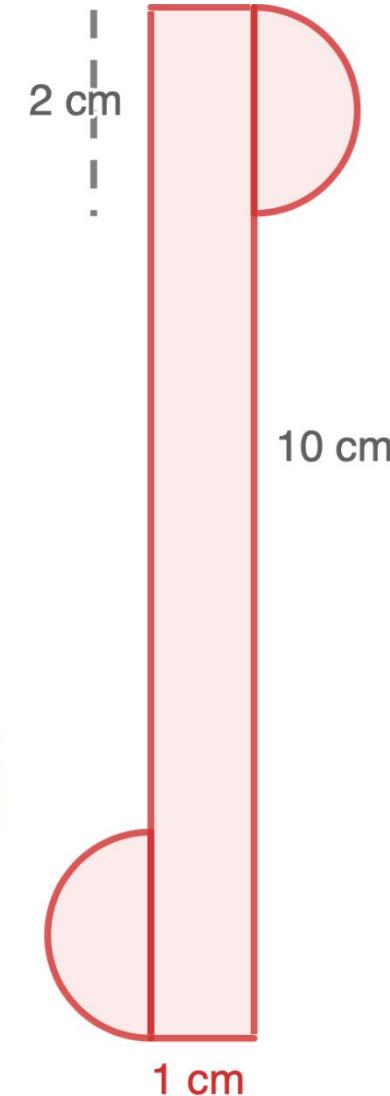
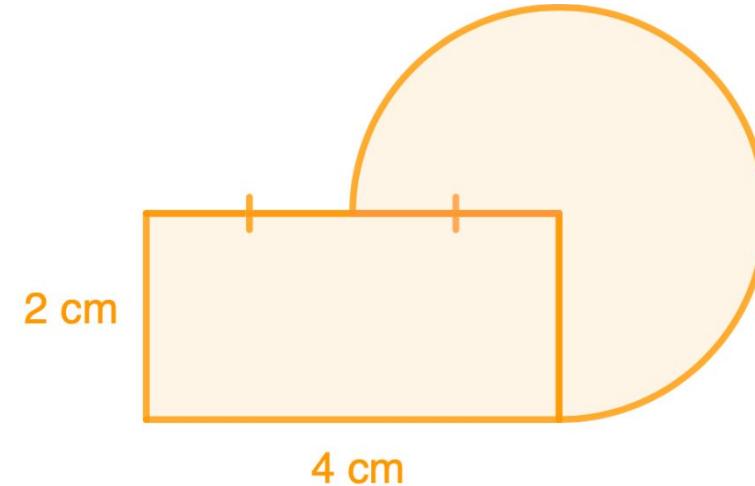
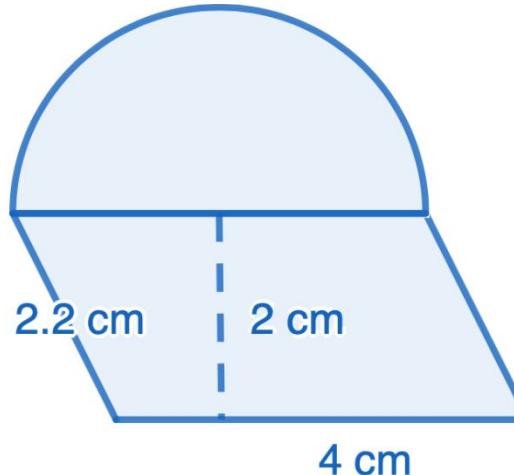




Group Task

LO: To find the area and perimeter of compound shapes involving circles.

Find the area and perimeter of each shape. Round to 1 d.p.

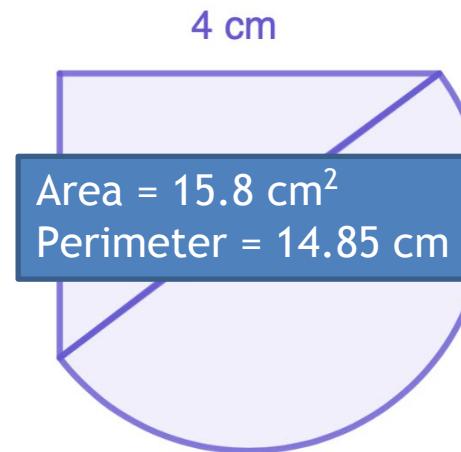
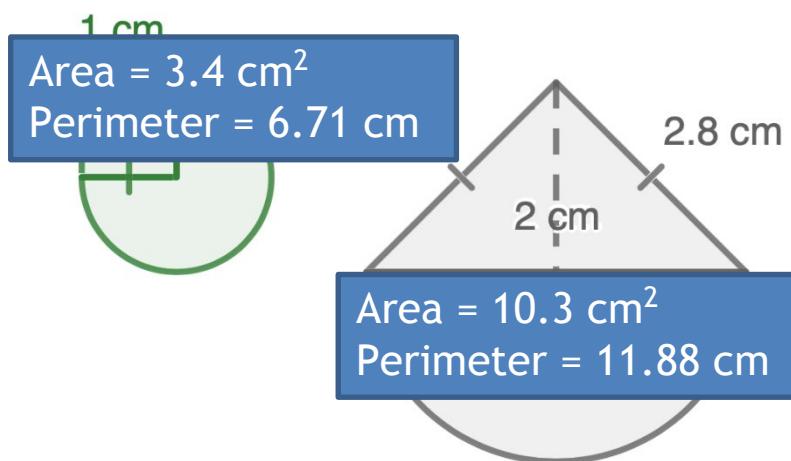
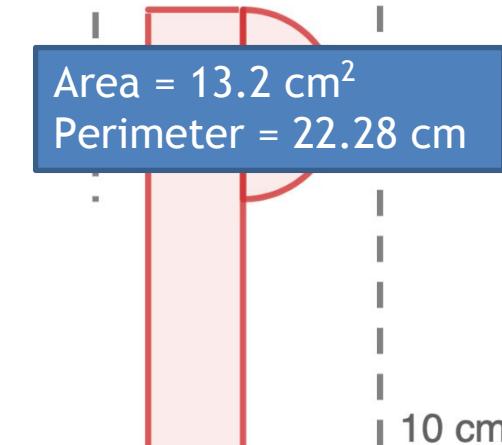
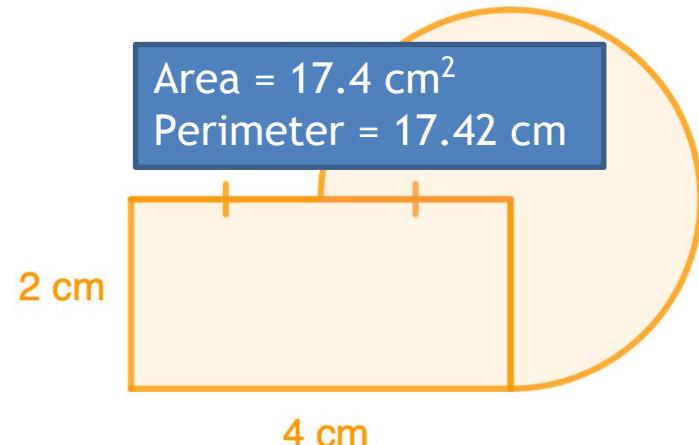
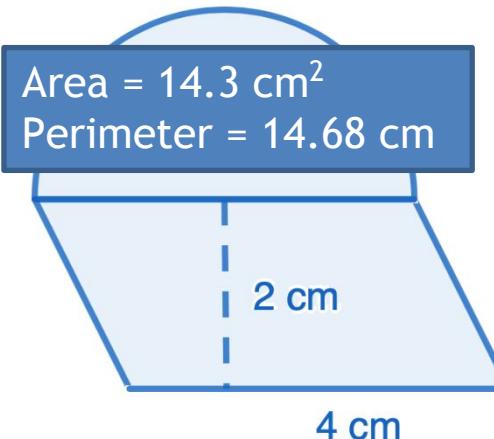




COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Find the area and perimeter of each shape. Round to 1 d.p.

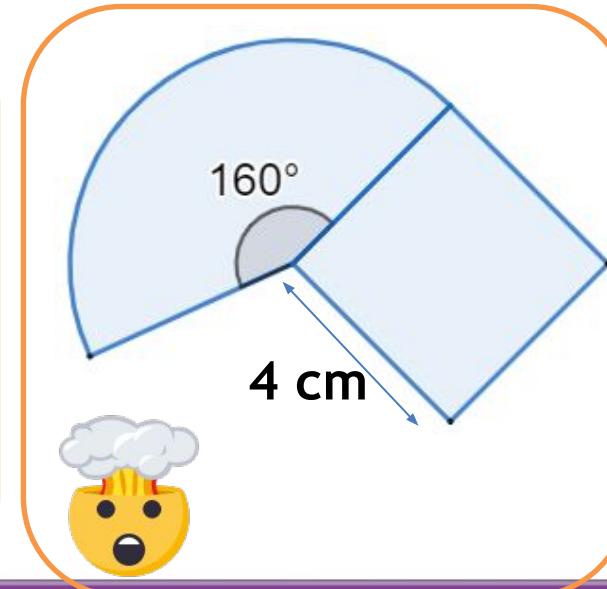
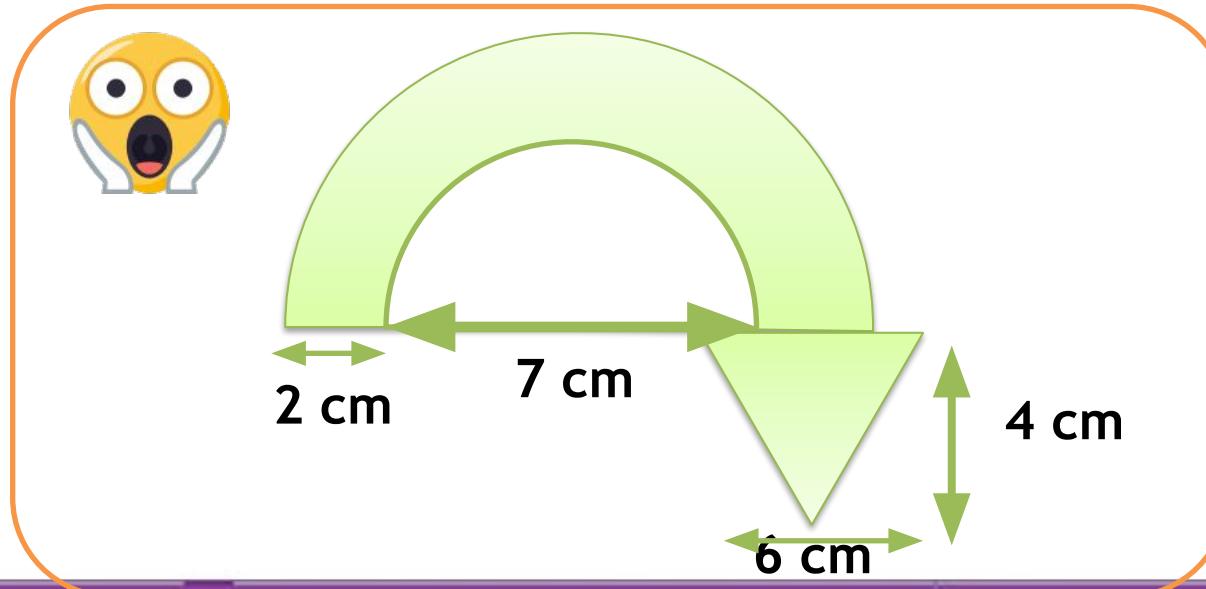
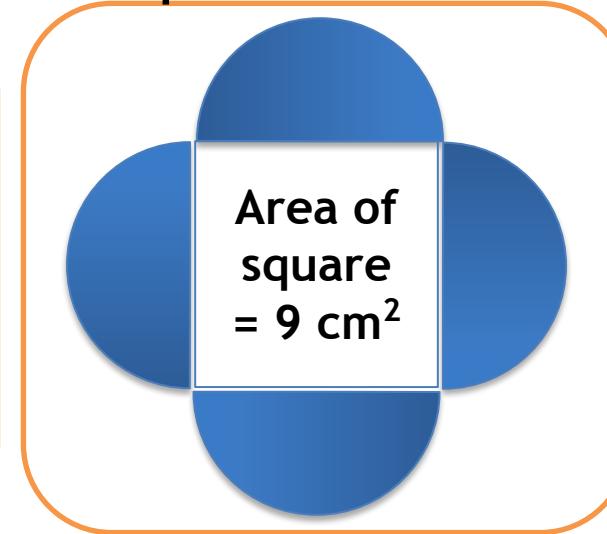
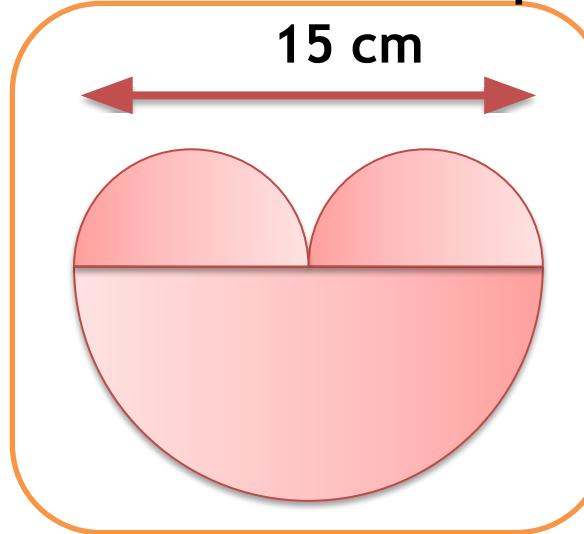
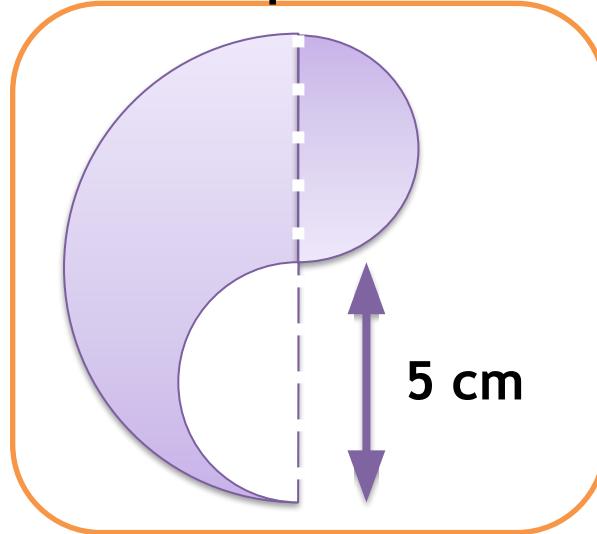




Core Task

LO: To find the area and perimeter of compound shapes involving circles.

Find the perimeters and areas of these compound shapes

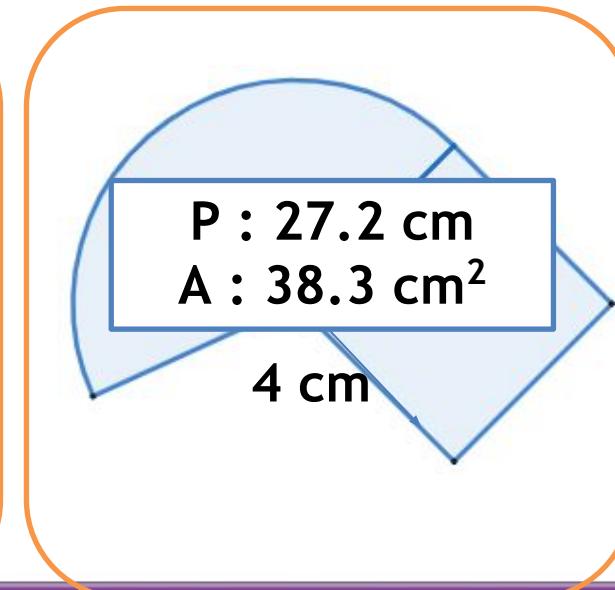
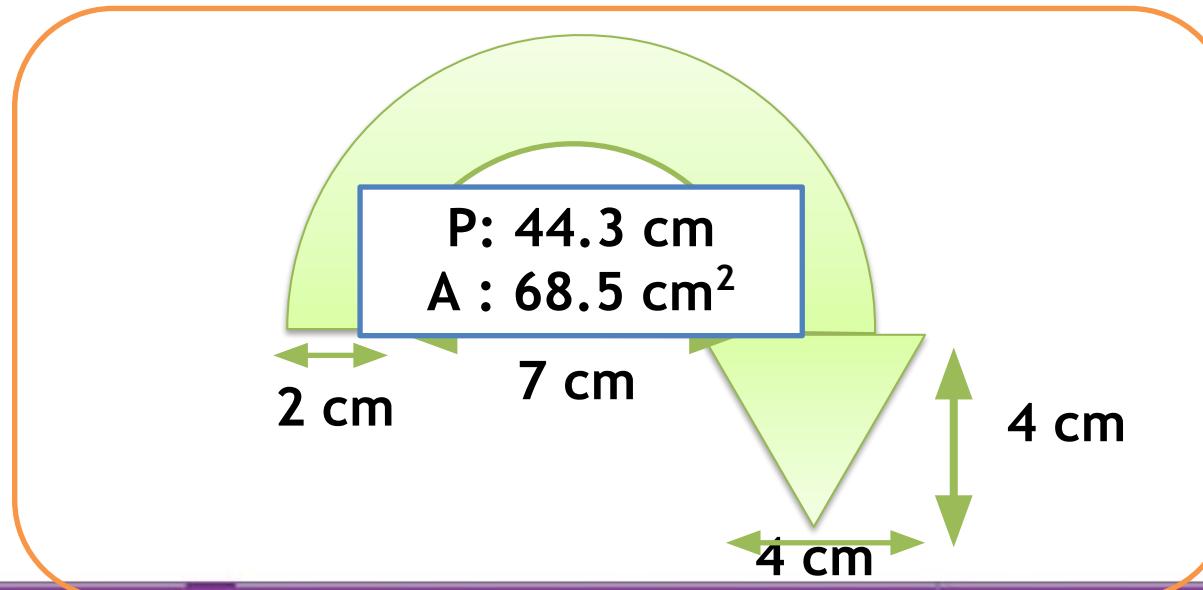
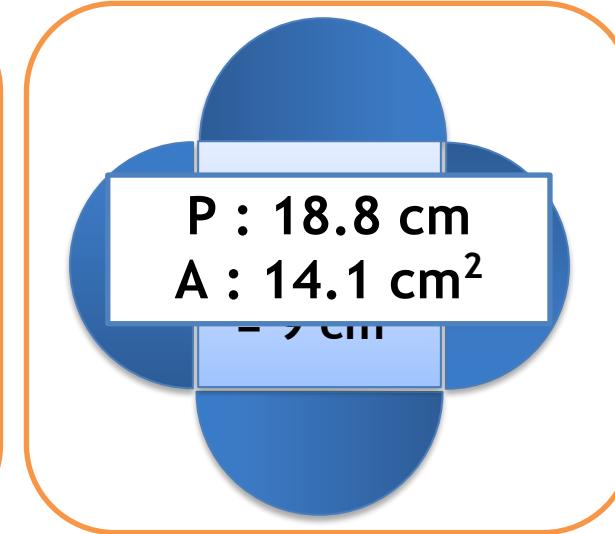
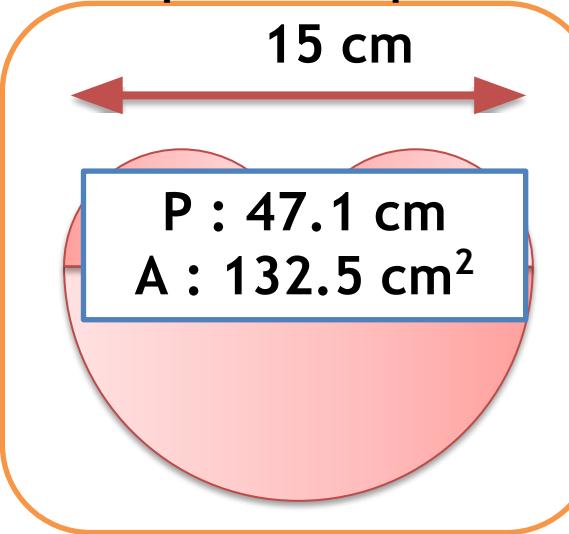
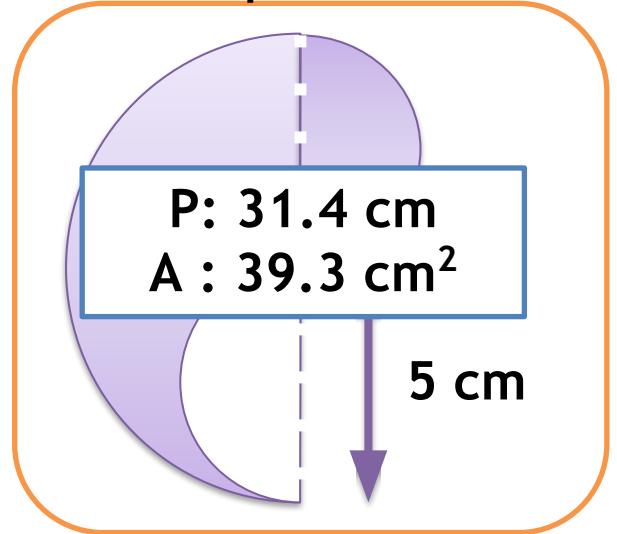




COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Find the perimeters of these compound shapes





PLENARY

LO: To find the area and perimeter of compound shapes involving circles.

5 QUICK QUESTIONS CHECK

Now it's time to check your learning.

You'll see five questions.

They all have a 45 second timer.

How many can you get right?

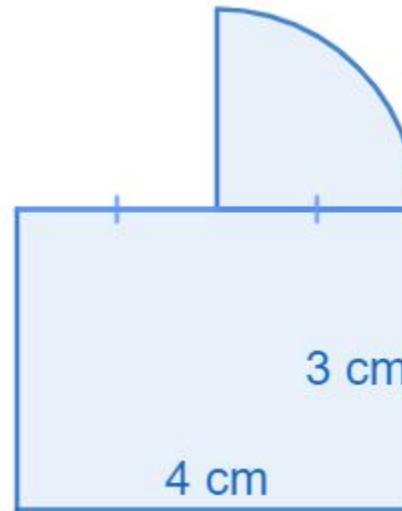


COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Question 1

Find the area



Timer

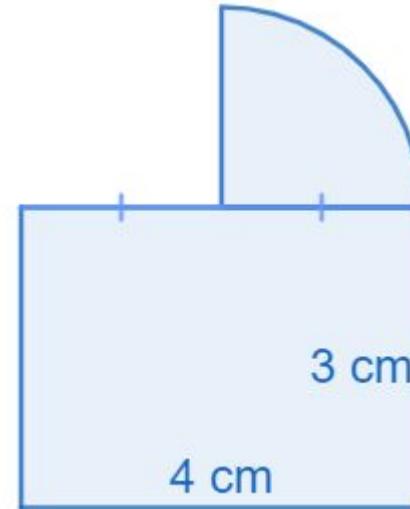


COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Find the perimeter

Question 2



Timer

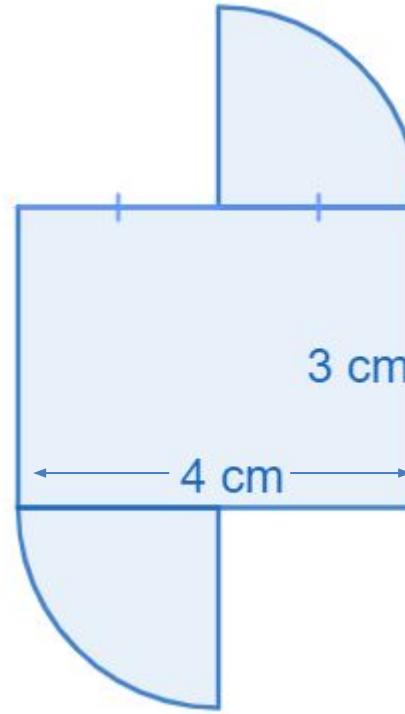


COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Question 3

Find the area



Timer

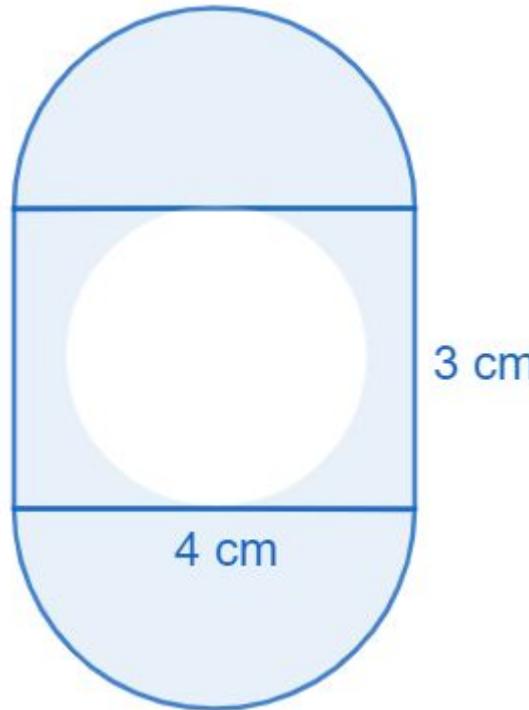


COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Question 4

Find the shaded area

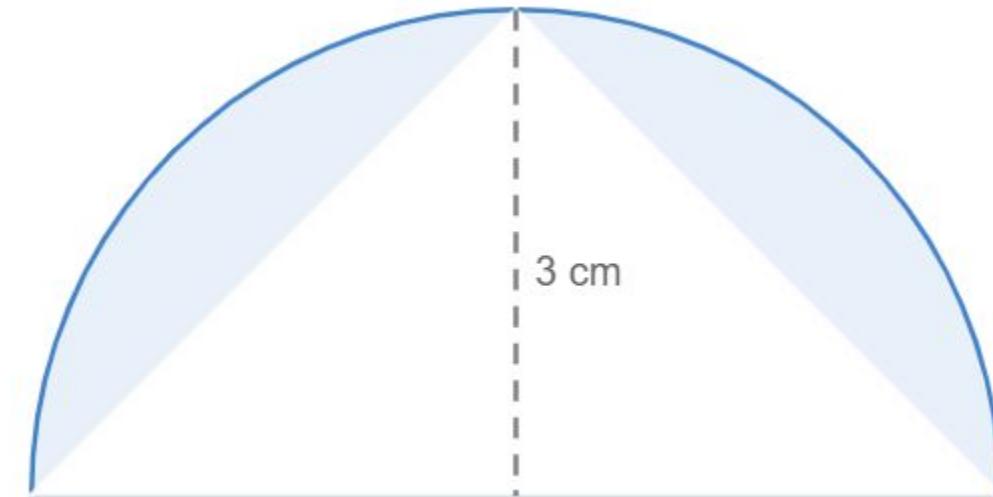


Timer



Question 5

Find the shaded area



Timer



COMPOUND SHAPES (WITH CIRCLES)

LO: To find the area and perimeter of compound shapes involving circles.

Answers:

1) $a = 15.1 \text{ cm}^2$ or $\pi + 12$

2) $a = 15.6 \text{ cm}$ or $\frac{1}{2}\pi + 14$

3) $a = 18.3 \text{ cm}^2$ or $2\pi + 12$

4) $a = 17.5 \text{ cm}^2$

5) $a = 5.1 \text{ cm}^2$