



St. Mary's Catholic High School, Muhaisnah

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.

COMPOUND SHAPES **(WITH CIRCLES)**

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KEYWORDS:

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

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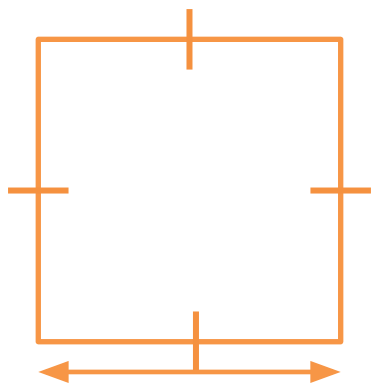


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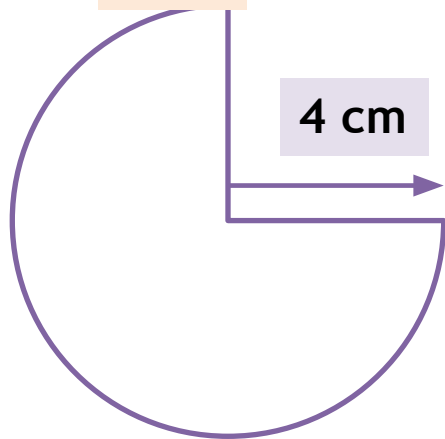
MENTAL MATH

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

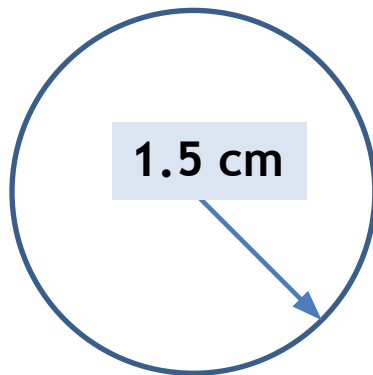
Find the perimeters and areas of the following shapes. The shapes are not to scale.



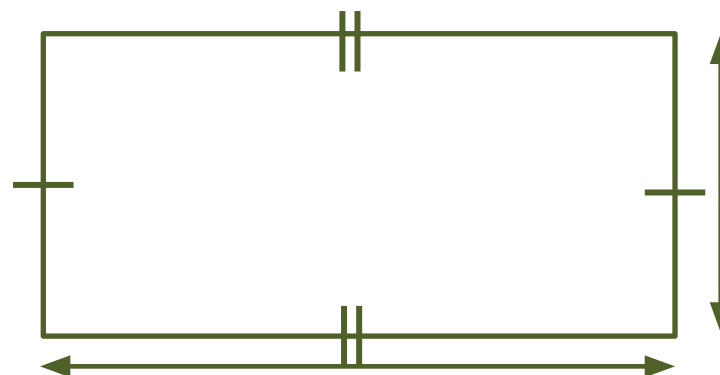
3 cm



4 cm

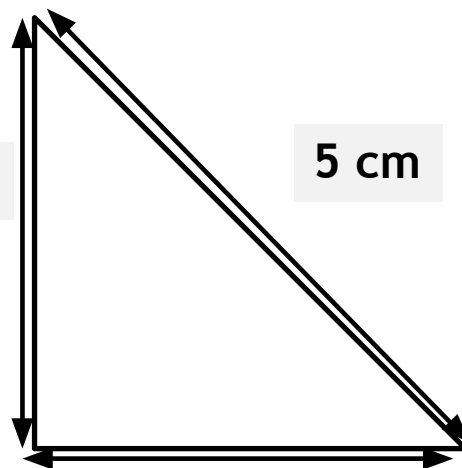


1.5 cm



3 cm

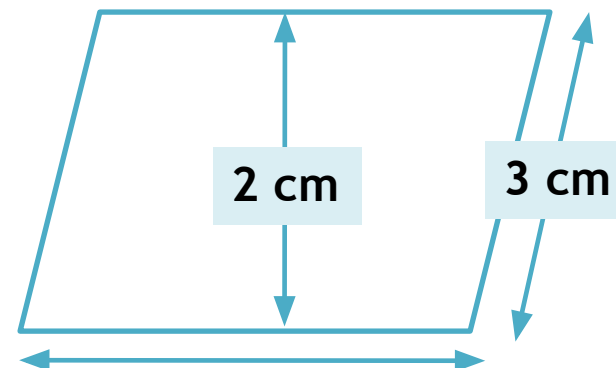
10 cm



5 cm

4 cm

3 cm



2 cm

3 cm

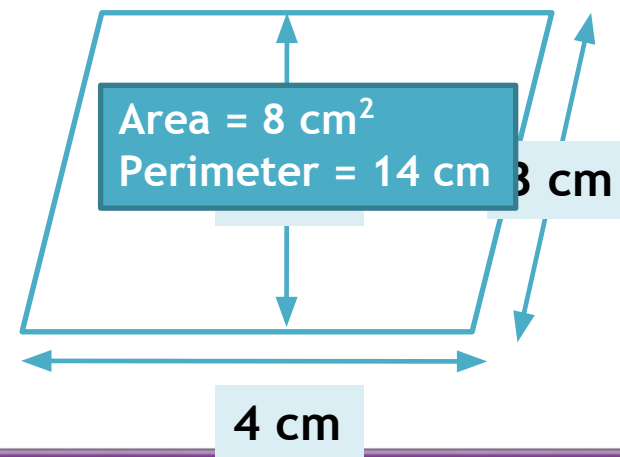
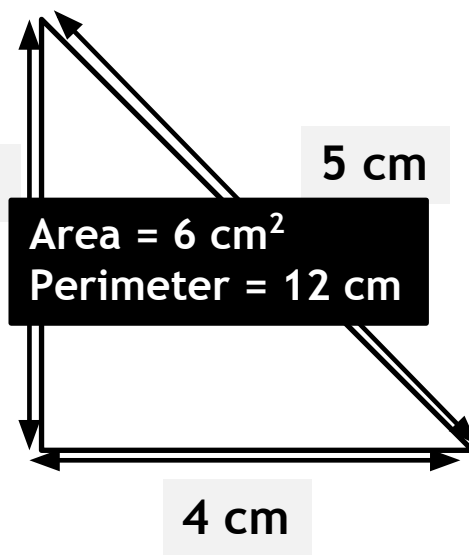
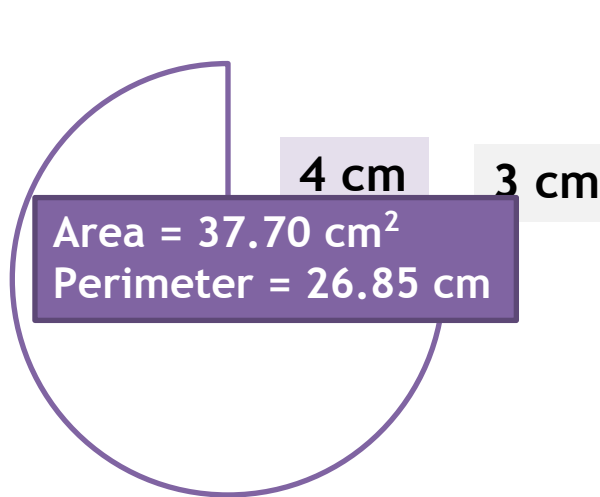
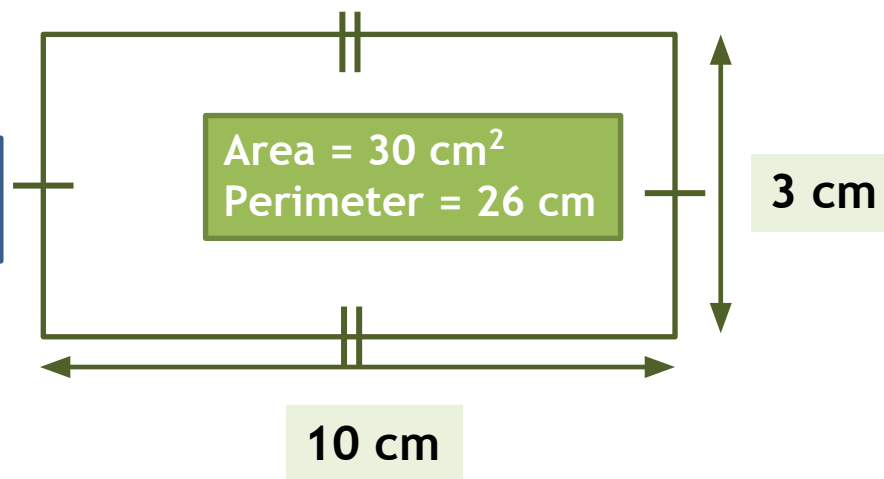
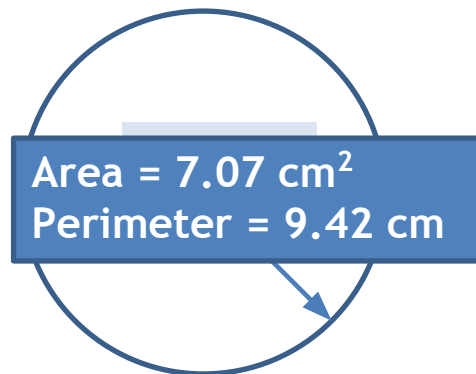
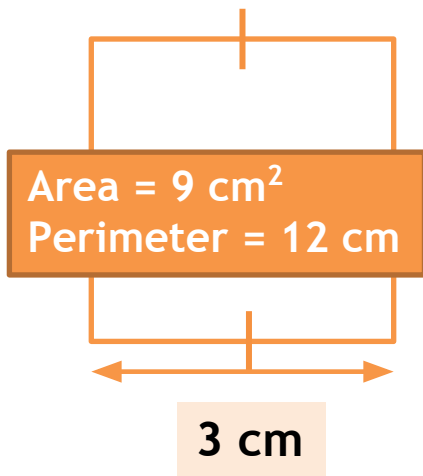
4 cm



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.

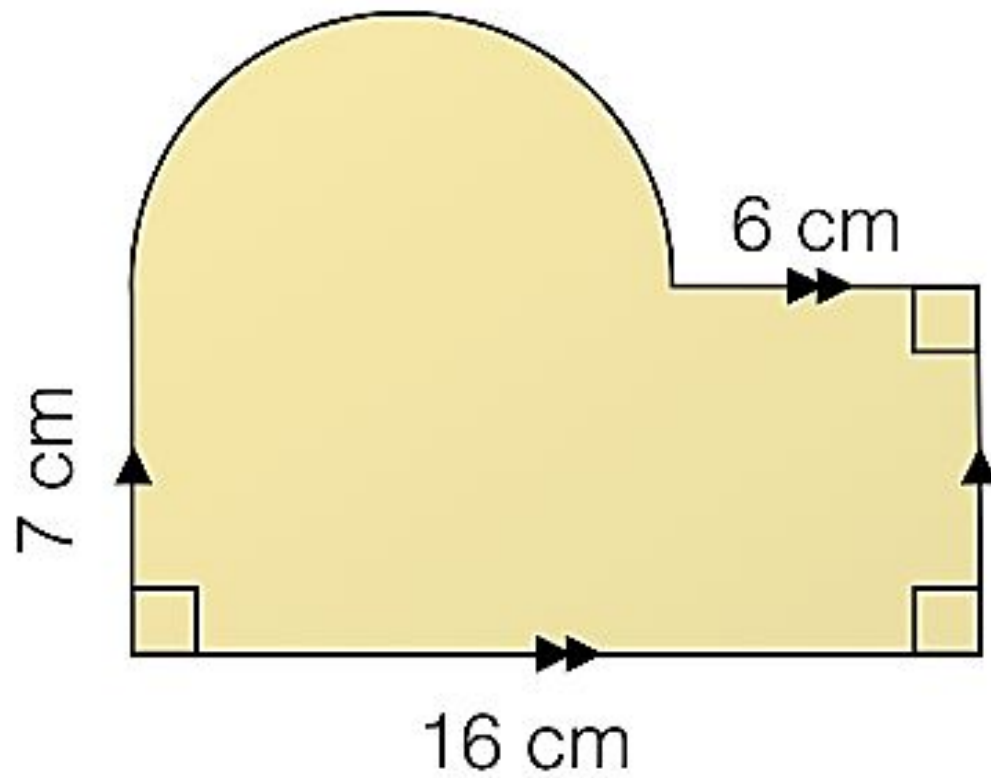




STARTER

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.





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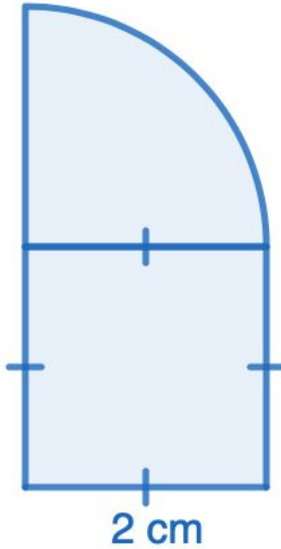
My/Your Turn

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

Example

Thoughts?

Your Turn



Find the area and perimeter of this shape



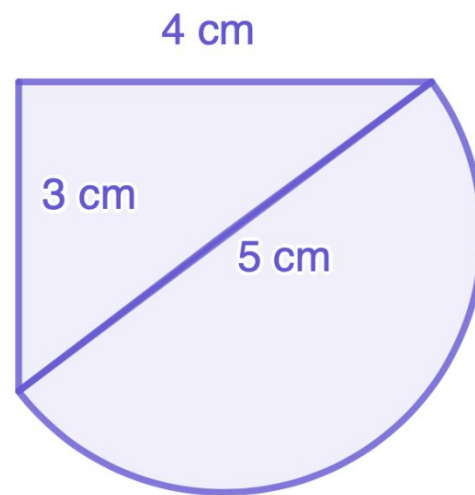
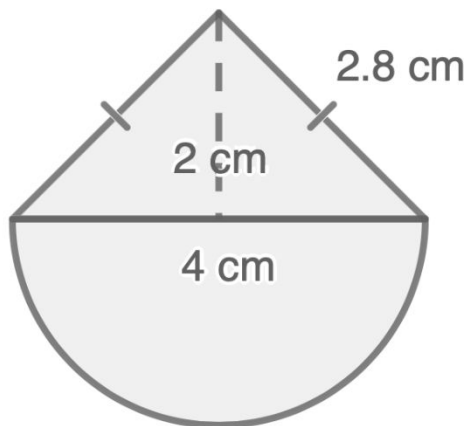
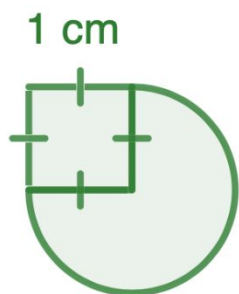
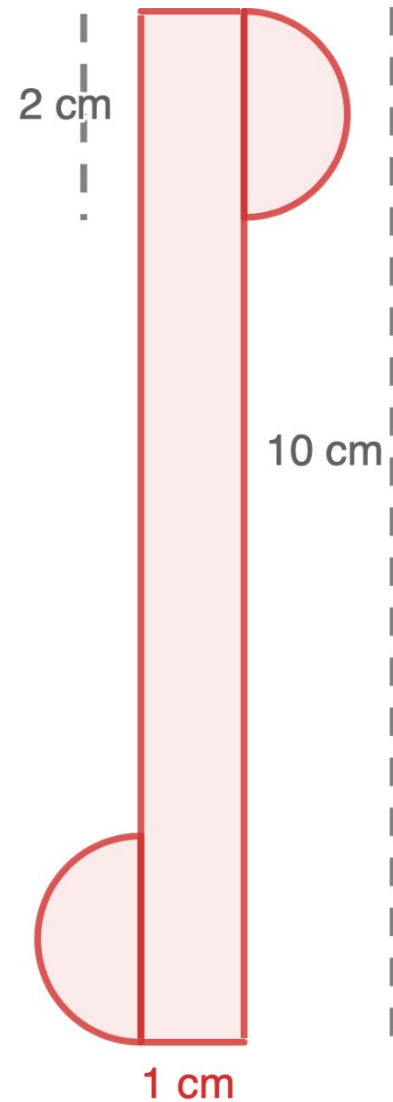
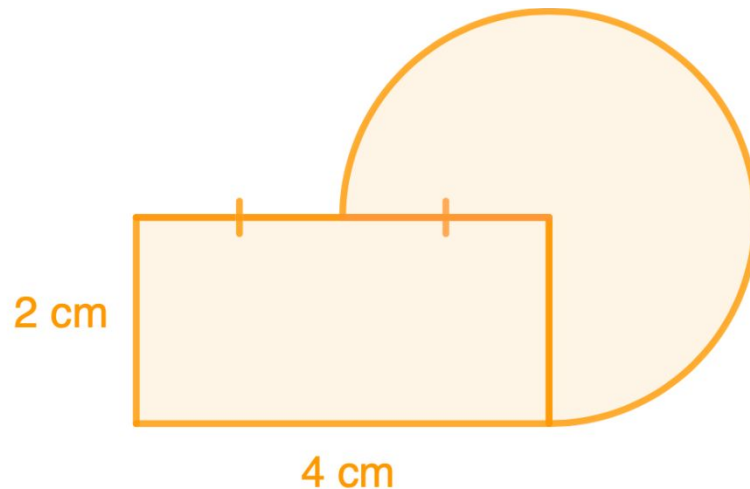
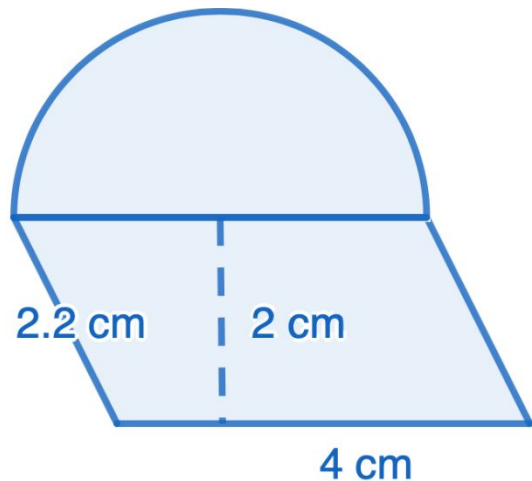


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Group Task

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.

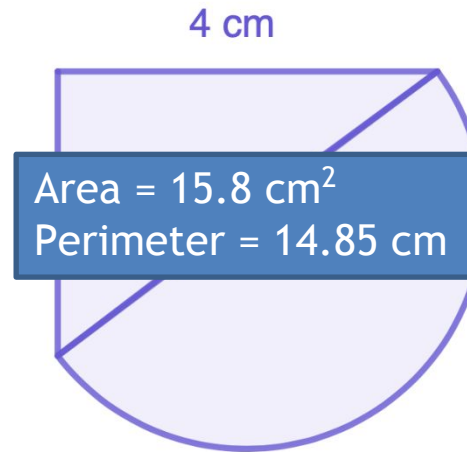
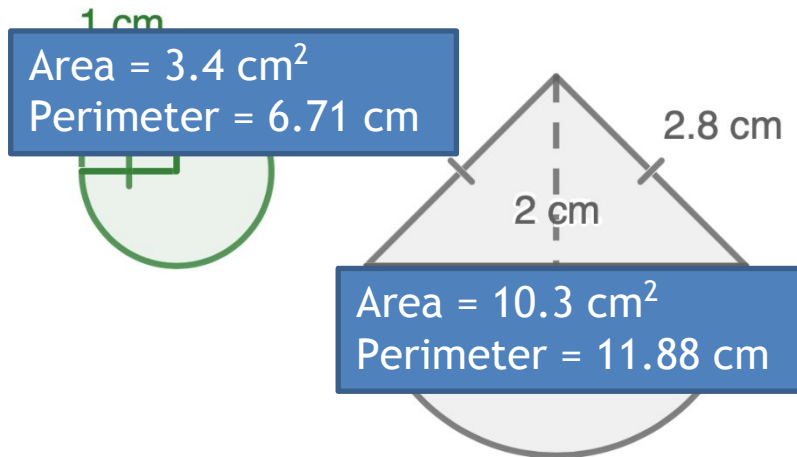
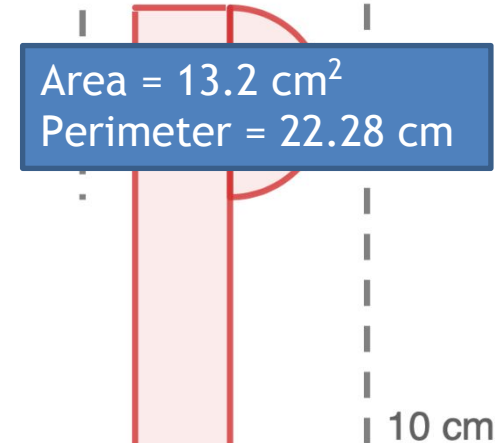
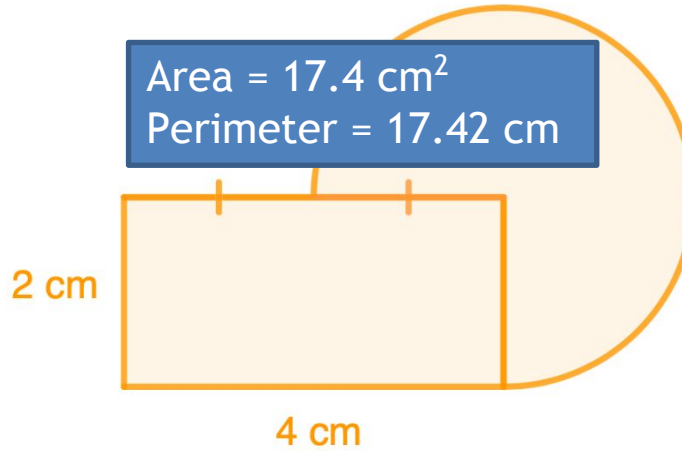
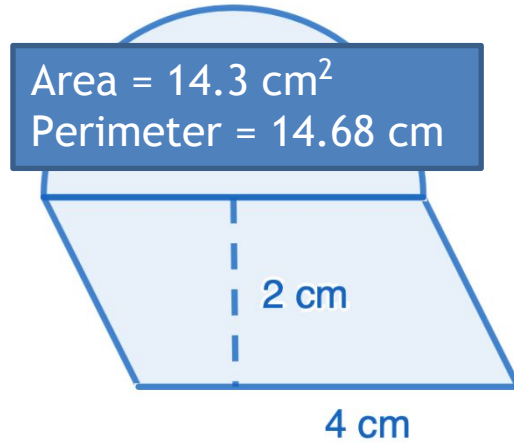




COMPOUND SHAPES (WITH CIRCLES)

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.



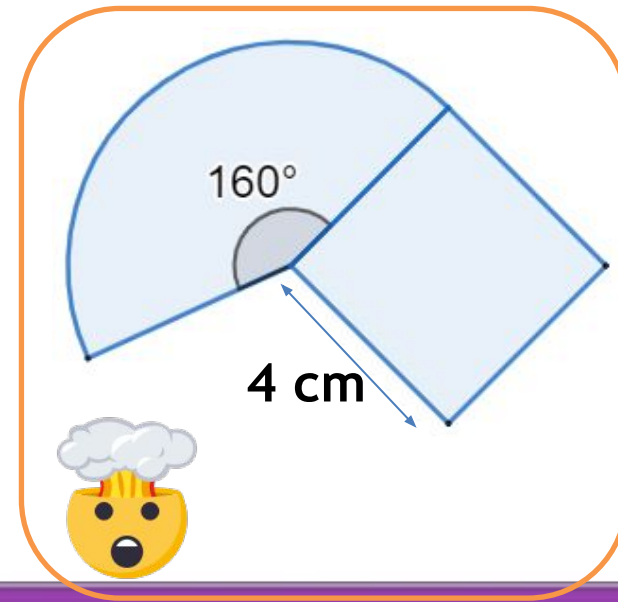
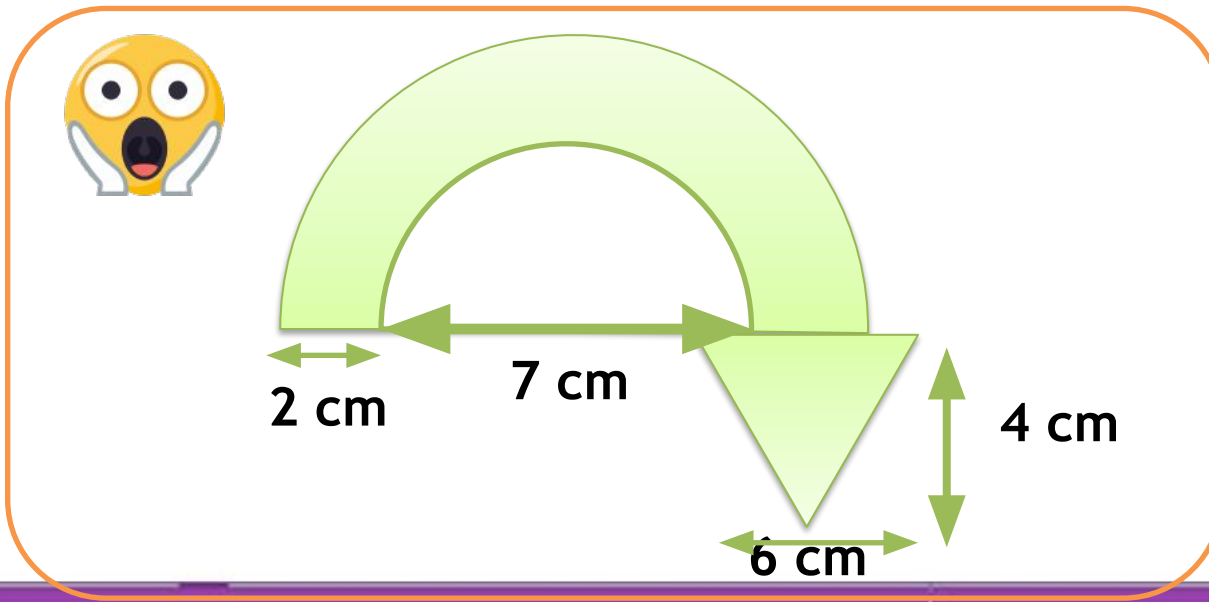
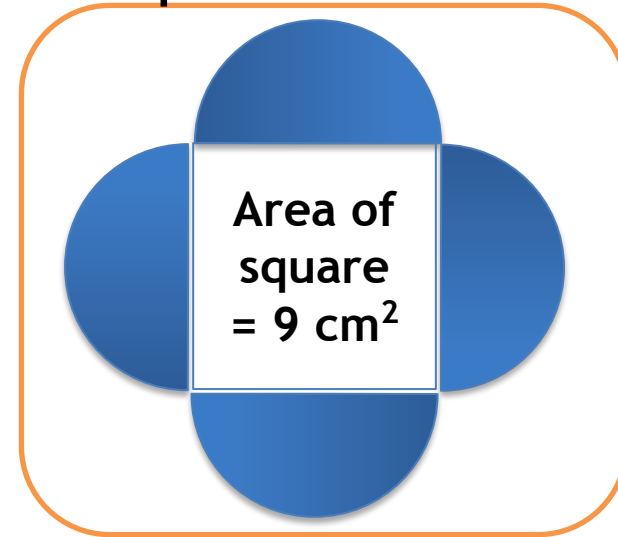
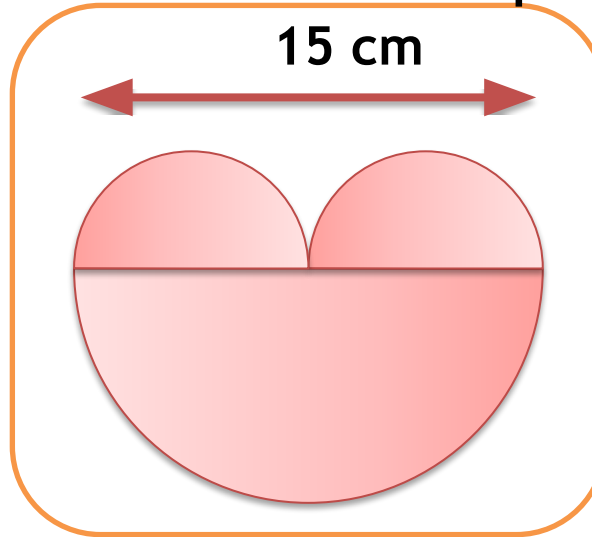
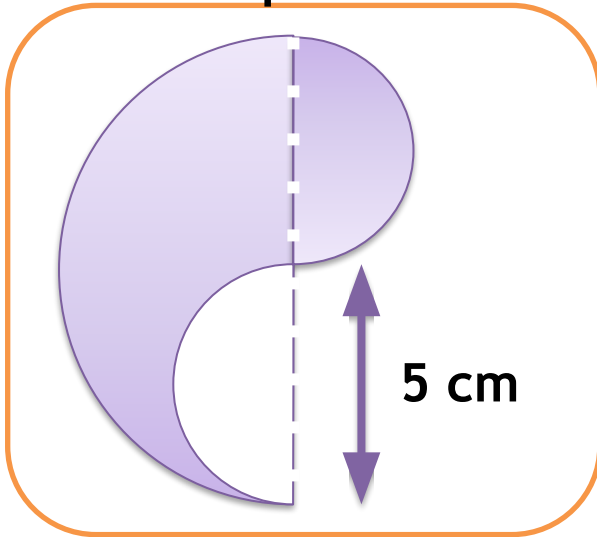


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Core Task

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

Find the perimeters and areas of these compound shapes

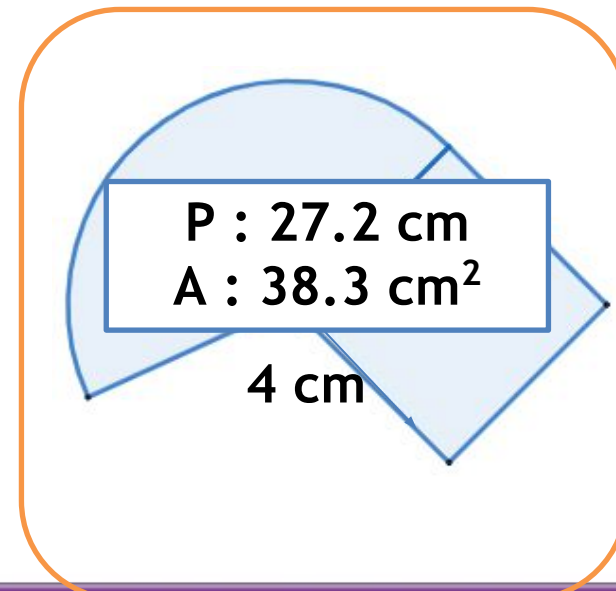
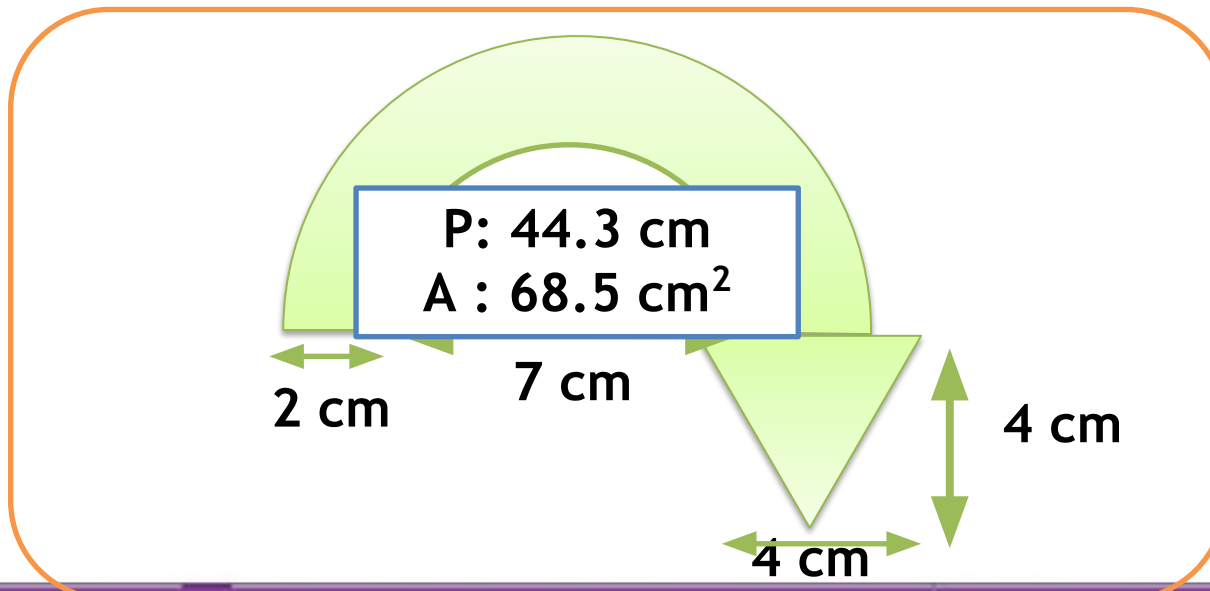
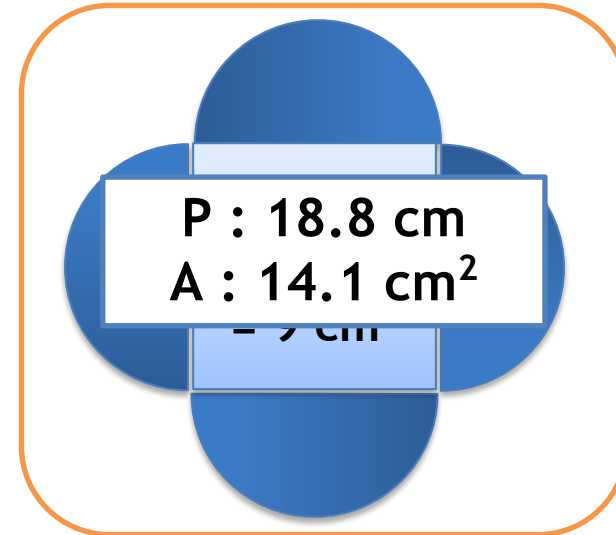
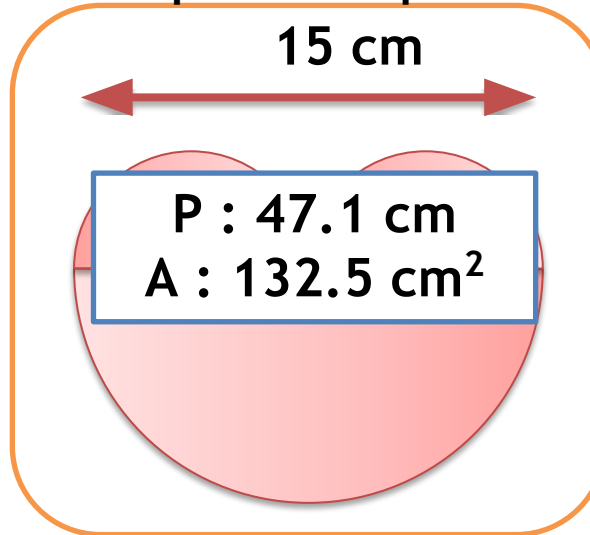
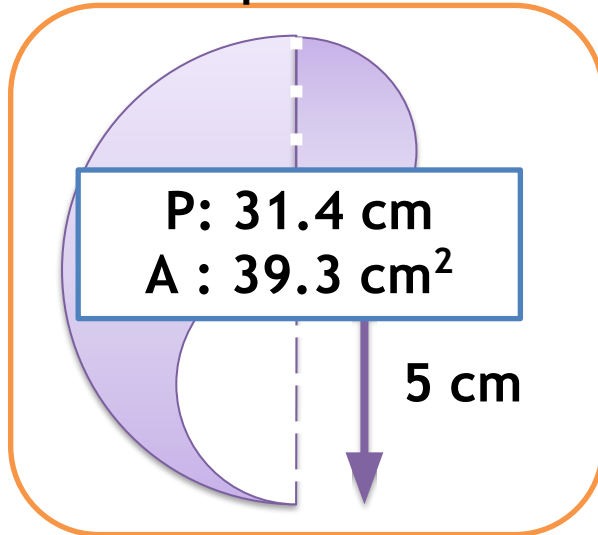




COMPOUND SHAPES (WITH CIRCLES)

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

Find the perimeters of these compound shapes





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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?



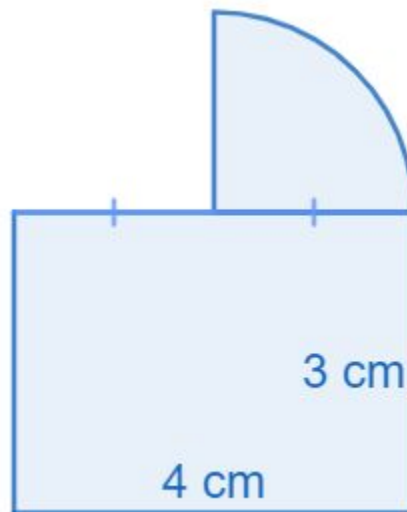
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COMPOUND SHAPES (WITH CIRCLES)

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

Question 1

Find the area



Timer



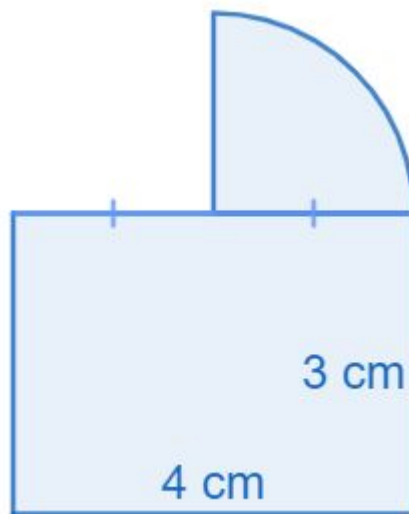
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COMPOUND SHAPES (WITH CIRCLES)

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

Question 2

Find the perimeter



Timer



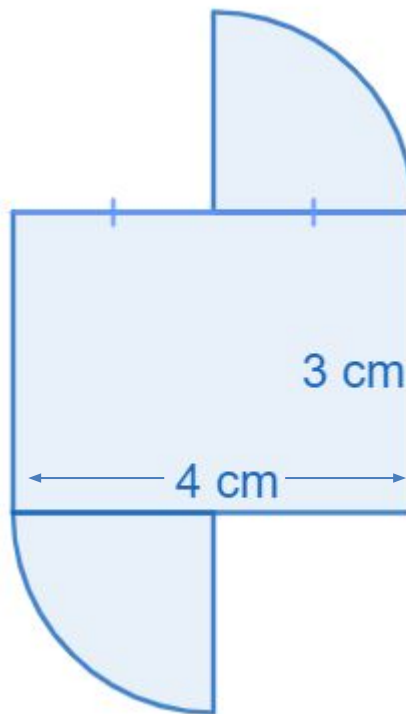
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COMPOUND SHAPES (WITH CIRCLES)

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

Question 3

Find the area



Timer



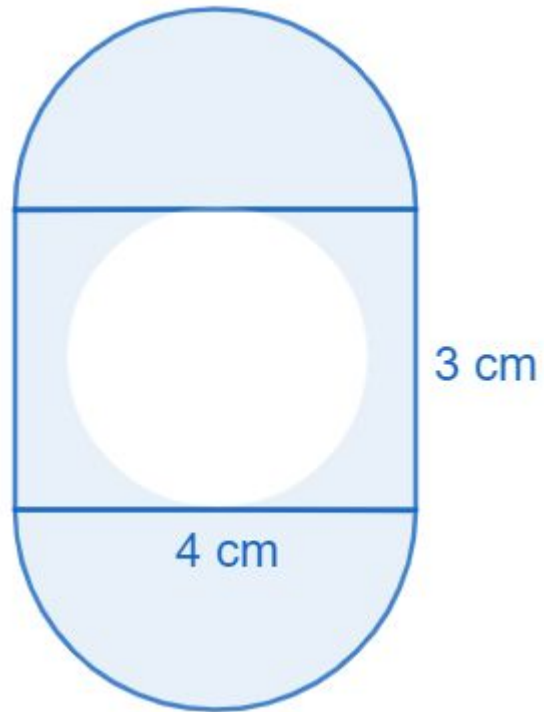
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COMPOUND SHAPES (WITH CIRCLES)

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

Question 4

Find the shaded area



Timer



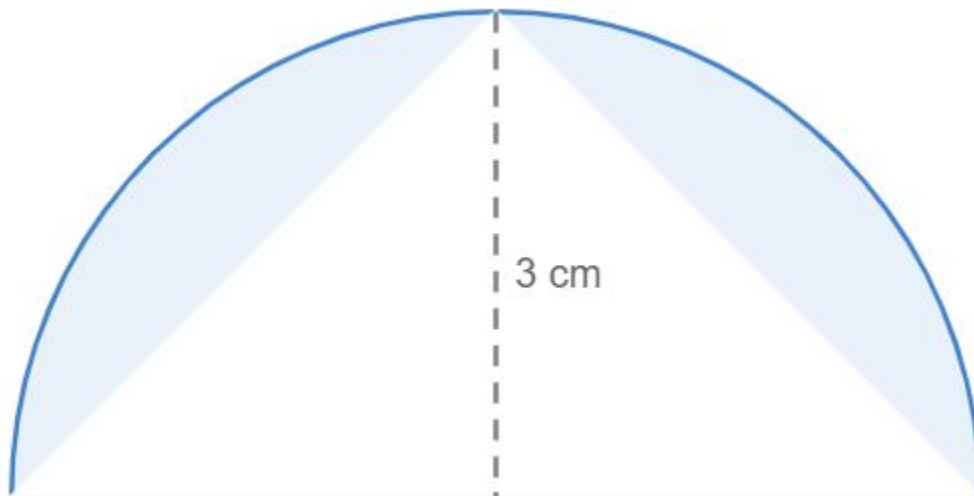
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COMPOUND SHAPES (WITH CIRCLES)

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

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

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

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

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

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