



Area of composite figures

GRADE 7 MATH

Name _____

Date _____

Work in order. List every piece with its area before totalling. Leave π in your answers. One skill: **composite area**.

WORKED EXAMPLE

Decompose into shapes you know and **add**, or compose a whole and **subtract** what is missing. Before using any length, ask which piece it belongs to and whether it is a radius or a diameter.

1. Find the area of a rectangle 9 cm by 4 cm.

FLUENCY

Show your thinking

Answer

2. Find the area of a triangle with base 9 cm and height 6 cm.

FLUENCY

Show your thinking

Answer

3. A shape is that rectangle with that triangle on top. Find the total area.

APPLICATION

Show your thinking

Answer

4. Find the area of a semicircle with radius 4 cm.

APPLICATION

Show your thinking

Answer

5. Find the area of a full circle with radius 4 cm.

FLUENCY

Show your thinking

Answer

6. Compare your answers to questions 4 and 5. Explain the relationship.

REASONING

Show your thinking

Answer

7. A running track shape is a 10 cm by 4 cm rectangle with a semicircle on each short end. What is the radius of each semicircle?

REASONING

Show your thinking

Answer

8. Find the total area of that track shape.

REASONING

Show your thinking

Answer

9. A student used 4 cm as the radius of each semicircle in question 7. By what factor is their circular area wrong, and why?

REASONING

Show your thinking

Answer