

10-8 Area: Irregular Figures (Pages 539–543)

You have learned the formulas for the area of a triangle, a parallelogram, a trapezoid, and a circle. You can use these formulas to find the area of irregular figures. An irregular figure is a two-dimensional figure that is not one of the previously named shapes. To find the area of an irregular figure, divide the figure into a series of shapes whose area formula you do know. Find the area of each shape. Then, find the sum of the areas of each shape.

Example

Find the area of the figure.

Divide the figure into familiar shapes.

Find the area of each shape.

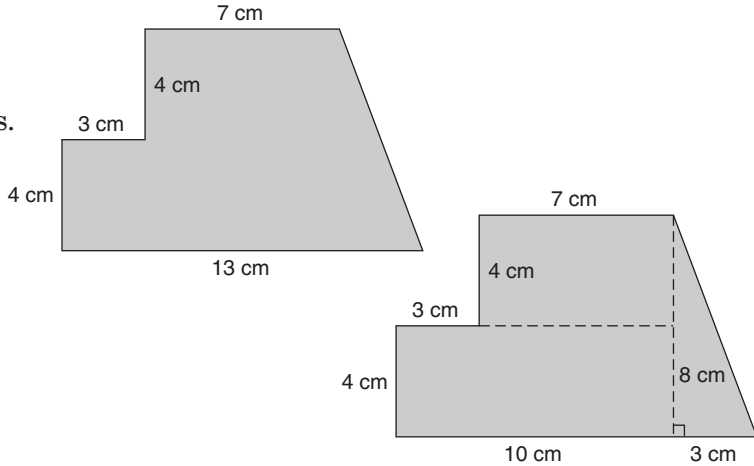
Rectangle₁: $A = \ell w = 7 \cdot 4 = 28 \text{ units}^2$

Rectangle₂: $A = \ell w = 10 \cdot 4 = 40 \text{ units}^2$

Triangle: $A = \frac{1}{2}bh = 0.5 \cdot 3 \cdot 8 = 12 \text{ units}^2$

Find the sum of the areas.

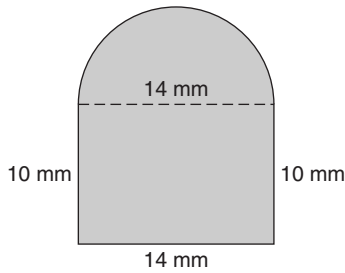
$28 + 40 + 12 = 80 \text{ units}^2$



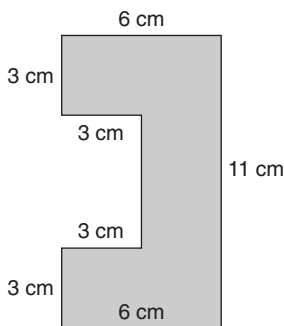
Practice

Find the area of each figure to the nearest tenth, if necessary.

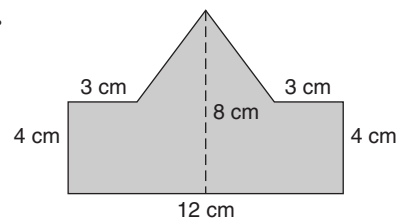
1.



2.



3.



4. **Standardized Test Practice** Which of the following has the same area as the figure shown?

A Square with $s = 5$ in.

C Triangle with $b = 6$ in. and $h = 9$ in.

B Rectangle with $\ell = 3$ in. and $w = 2.5$ in.

D Parallelogram with $b = 4$ in. and $h = 7$ in.

