

Area Word Problems

Solving area word problems:

1. Draw the picture.
2. Label everything you know.
3. Write the formula. Substitute what you know.
4. Write the solution in a complete sentence.

Units: The unit measurement for area is always squared.

π : Pi is used to find area of a circle. Use the key on your calculator and round to the nearest hundredth place.



Example

A piece of tracing paper measures 9 inches by 11 inches. What is the area of the paper?



11 in

9 in

Rectangle area formula:

$$\text{length} \cdot \text{width} = \text{area}$$
$$11 \text{ in} \cdot 9 \text{ in} = 99 \text{ in}^2$$

Solution: The area of a 9 in by 11 in piece of tracing paper is 99 inches²

Area Formulas

Square:

$$\text{side}^2 = \text{area}$$

Rectangle:

$$\text{length} \cdot \text{width} = \text{area}$$

Triangle:

$$\frac{1}{2} \cdot \text{base} \cdot \text{height} = \text{area}$$

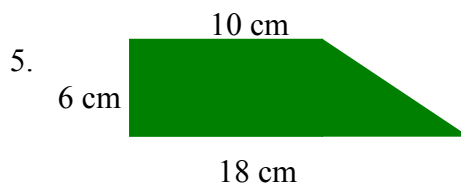
Circle:

$$\pi \cdot \text{radius}^2 = \text{area}$$



Practice

1. A rectangular soccer field is 50 feet by 110 feet. What is the area of this field?
2. You have four rectangular walls each 7 feet long by 9 feet high that need to be painted. What is the painting area? If you have enough paint for 210 ft², will you have enough paint?
3. A rectangular board is 8 feet by 9 feet. You need to cut it into two equal triangles. What is the area of each triangle? (Hint: Make a diagonal cut.)
4. A circular window with a radius of 2 feet needs to be placed into a door. What is the area of the window?



What is the area of this figure?