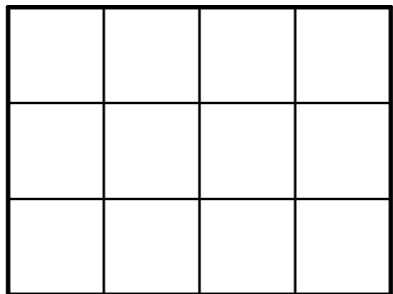


Section 6 – Topic 3
Area and Perimeter in the Coordinate Plane – Part 1

Consider the rectangle below.



Explain the differences between the perimeter and the area of the rectangle where each of the smaller squares has a side length of 1 in.

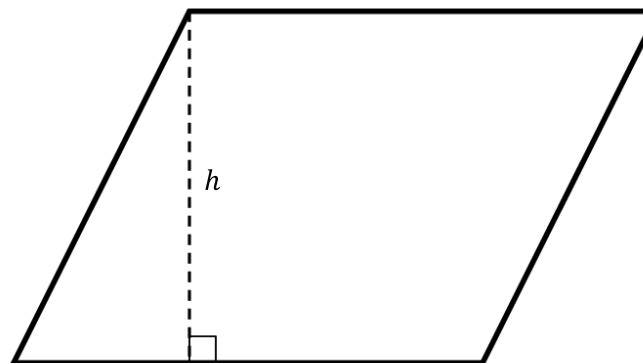
What is the perimeter of the rectangle above?

What is the area of the rectangle above?

What is the formula for finding the perimeter of any rectangle?

What is the formula for finding the area of any rectangle?

Consider the parallelogram below.



What is the formula for finding the area of any parallelogram?

Trace the parallelogram above on a separate piece of paper. Try cutting the parallelogram into two triangular pieces.

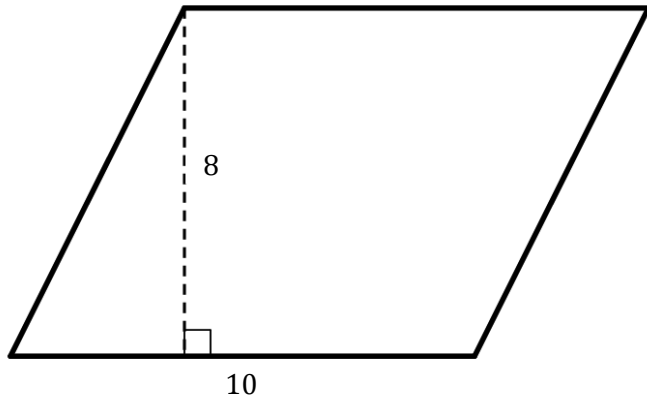
Use your observations to write the formula to find the area of any triangle.

What is the formula of the perimeter of a triangle?



Let's Practice!

1. Find the area of the following figure.



Try It!

2. A triangular poster is twice as long as its height. A rectangular banner is 3 inches longer than its width. Both the poster and the banner have areas of 648 square inches.
- a. What is the height and the base of the poster? Justify your answer.
- b. What is the length and width of the banner? Justify your answer.

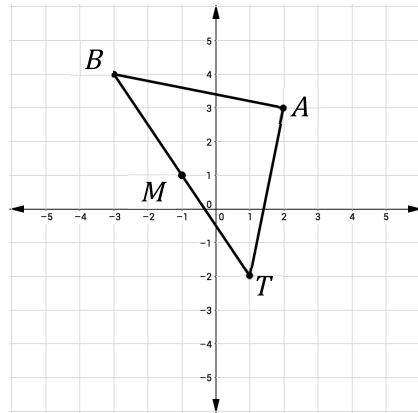


Section 6 – Topic 4
Area and Perimeter in the Coordinate Plane – Part 2

How can we find area and perimeter when a figure is on the coordinate plane?

Let's Practice!

1. Consider the triangle BAT below.

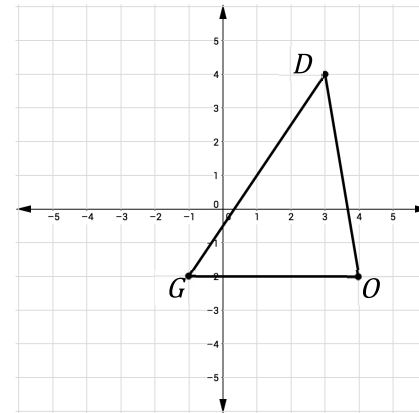


- a. Which side should be considered the base? Justify your answer.

- b. Find the area and perimeter of the triangle.

Try it!

2. Consider the figure below.



Deena's mother is helping her sew a large flag for color guard. Each square on Deena's plan above represents a square foot.

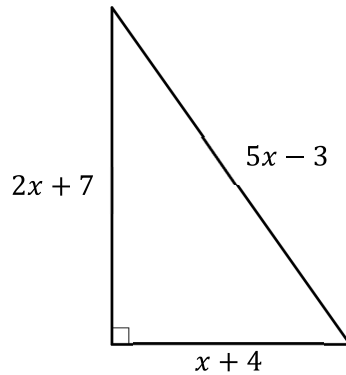
- a. Determine the amount of fabric needed in square feet.

- b. The flag will be trimmed with a ribbon on all sides. How much ribbon will be needed to the nearest tenth of a foot?



BEAT THE TEST!

1. Consider the right triangle below.

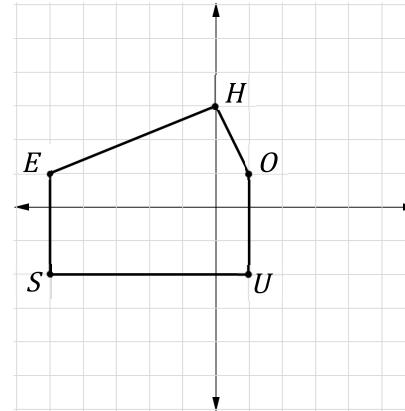


If the perimeter is 40 units, find the value of x and the area of the triangle.

The value of x is .

The area is square units.

2. Dallas is putting down hardwood floors in his home. His living room is pentagonal. Each unit on the coordinate plane represents 5 feet. Find the area of flooring needed in square feet.



Which of the following is the total area of the living room?

- Ⓐ 18 ft^2
- Ⓑ 24 ft^2
- Ⓒ 450 ft^2
- Ⓓ 600 ft^2