## **Review of Area and Perimeter**

## Covering & Surrounding 1.1-3.4

What is the area and perimeter of the figure? (We will say units are in feet).



Area= 15 ft<sup>2</sup>

Perimeter= 20 ft.





After building this house, the owners want to put new carpeting in it. What measurement would we need to determine how much carpet to use?

Area= 432 ft<sup>2</sup>

Perimeter = 84 ft.

They would want to use the area measurement as this would tell them how many square feet of carpeting they need to buy.

Justin wants to fence in the largest possible perimeter in his backyard for his dog. Which of the following dimensions of a rectangle should he use?

8 ft. x 7 ft.

4 ft. x 14 ft.

How do the areas of each of these dimensions relate?



Let's say Justin wanted to create a triangular area using the above dimensions as the height and base respectively, what are the areas of the triangular configurations?

He should use the 4ft x 14ft dimensions.

These dimensions create the same area.

The areas of the triangles created by the dimensions would be 28 ft<sup>2</sup>

Student Council wants to begin selling these signs for a fundraiser at Vestaburg. The dimensions of the signs are labeled. What is the area and perimeter of the sign?



How many square inches of material would Student Council need to make 12 signs?

Area= 97.5 in<sup>2</sup>

Perimeter= 47 in.

They would need 1,170 in<sup>2</sup> in order to make 12 signs.

These two triangles have the same base and height. What can you say about their areas and perimeters?



The areas of the two triangles are exactly the same, however, the perimeter of the right triangle is larger.

- 1. What is the area and perimeter of the following figure?
- 2. Is it possible to draw a different parallelogram with the same area as this parallelogram?





## Area= $40 \text{ cm}^2$

Perimeter= 30 cm



10cm

- 1. What is the area of the light shaded region?
- 2. What is the area of the portion of the dark shaded region which is showing?
- 3. Let's say I wanted to put a frame around the dark region, what would the perimeter of the frame be?



15in.

- 1. 27 in<sup>2</sup>
- 2. 123 in<sup>2</sup> (150 in.<sup>2</sup> 27 in<sup>2</sup>)
- 3. 50 in. (This is the perimeter of the figure)



1. What are the coordinates of the vertices A, B, C, D and E?

2. What coordinates help you find the length of a side of this figure?

3. What would happen to the area and perimeter of this shape if we moved the coordinates of this shape to a different location?

1. Coordinates:

A- (10,7)

B- (6,10)

C- (2,7)

D- (4,3)

E- (8,3)

2. The coordinates of vertices D and E. Since they are on the grid, we know the distance from (4,3) to (8,3) is 4 units.

3. The area and perimeter would stay the same. Only the coordinates would change.