

## Lesson 1: Resources

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The following pages are examples of activities and exercises from Lesson Body, page 8.

### Area and Perimeter of Similar Figures:

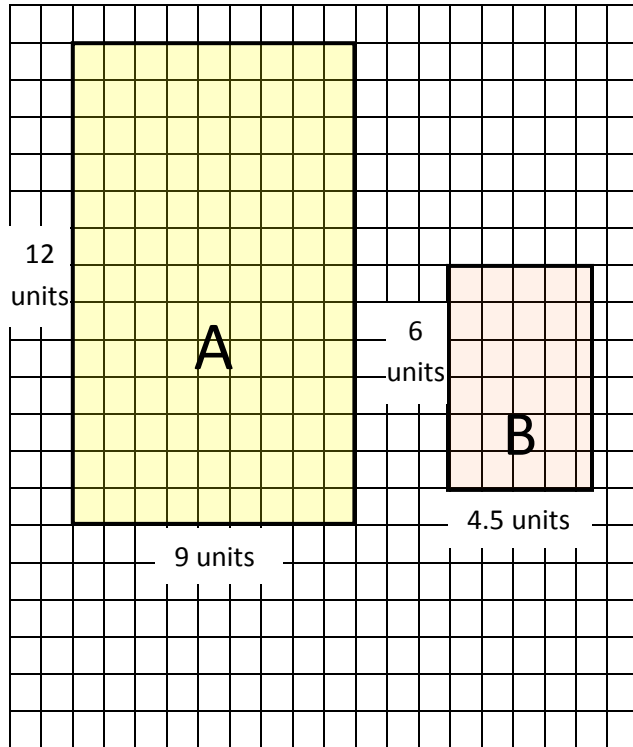


Figure A

$$A = 12 \text{ units} \times 9 \text{ units}$$

$$A = 108 \text{ units}^2$$

Figure B

$$A = 6 \text{ units} \times 4.5 \text{ units}$$

$$A = 27 \text{ units}^2$$

$$P = 12 \text{ units} + 12 \text{ units} + 9 \text{ units} + 9 \text{ units}$$

$$P = 42 \text{ units}$$

$$P = 6 \text{ units} + 6 \text{ units} + 4.5 \text{ units} + 4.5 \text{ units}$$

$$P = 21 \text{ units}$$

Compare Area of figures A and B

$$\frac{AA}{AB} = \frac{108}{27}$$

$$\frac{AA}{AB} = \frac{4}{1}$$

Compare Perimeter of figures A and B

$$\frac{PA}{PB} = \frac{42}{21}$$

$$\frac{PA}{PB} = \frac{2}{1}$$

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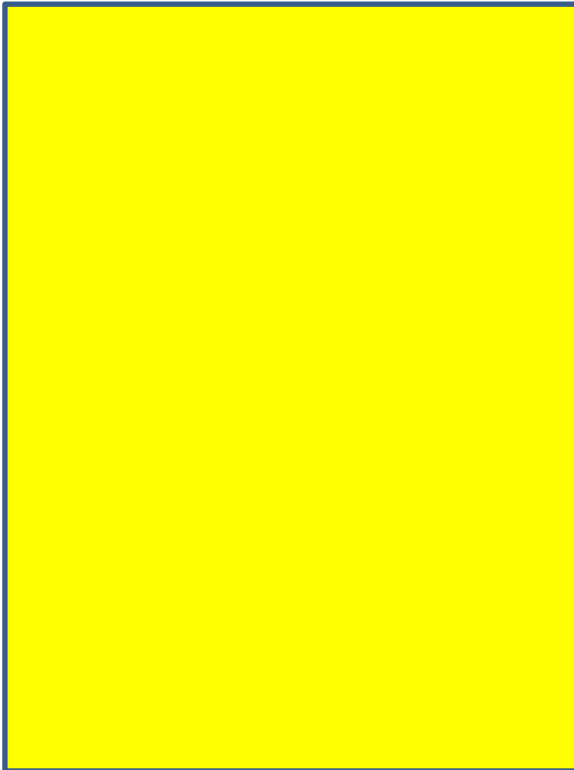
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The student can use manipulatives (next 2 images) to compare the two figures by laying rectangle B over rectangle A until completely covered to determine how many times bigger area of A is than B. The student can compare perimeter by laying rectangle B over rectangle A to determine how many are needed to create the same length (2), and how many are needed to create the same width (2).

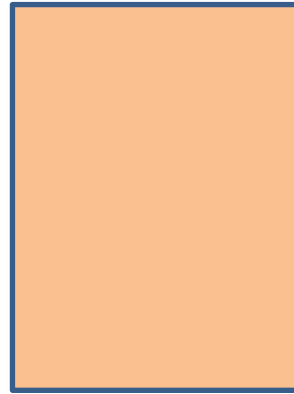
The area of A is 4 times the area of B. The perimeter of A is 2 times the perimeter of B.

Tactile representations of similar figures: Cut out figures using construction paper, poster board, card board, sand paper, etc. Representations can also be cut out as templates or frames to lay over grid paper or cut out of transparencies to see grid lines.

**Rectangle A**

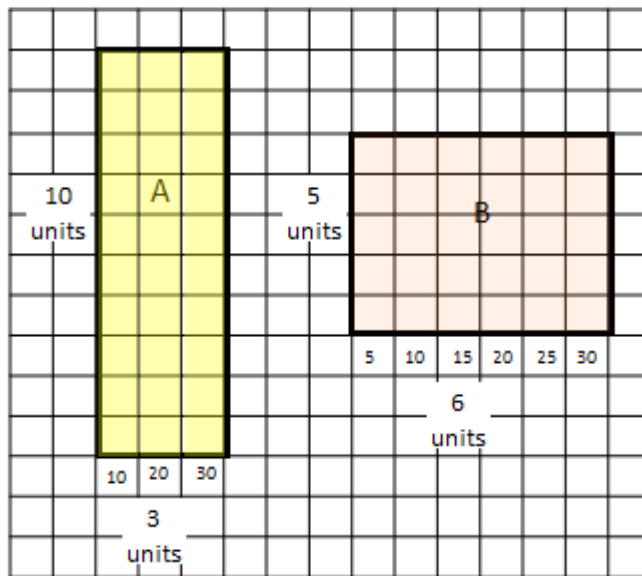


**Rectangle B**



**Lesson 1: Resources – continued**

Verify that the area of figures A and B are the same.



A = 10 units x 3 units  
 A = 30 units<sup>2</sup>

A = 5 units x 6 units  
 A = 30 units<sup>2</sup>

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**Is the area of Figure A the same as the area of Figure B?**

Figure A:

A = 10 units x 3 units

A = 30 units (squared)

Figure B:

A = 6 units x 5 units

A = 30 units (squared)

**Is the perimeter of Figure A the same as the perimeter of Figure B?**

Figure A:

P = 10 units + 10 units + 3 units + 3 units

P = 26 units

Figure B:

P = 6 units + 6 units + 5 units + 5 units

P = 22 units

**The perimeter of Figure A and Figure B is:**

The same

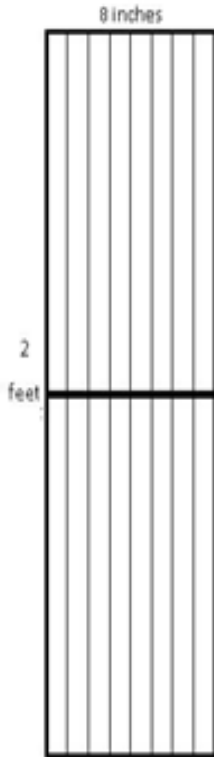
Different

**The perimeter of Figure A is more than / less than / the same as the perimeter of Figure B.**

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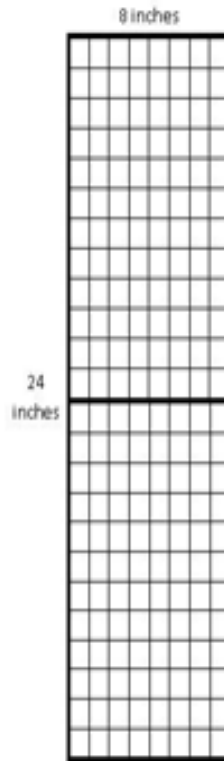
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Find the figure that has the measurements 8 inches by 2 feet.



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Convert the units so that inches are used for both length and width.



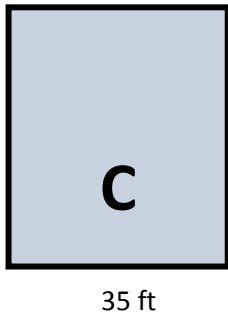
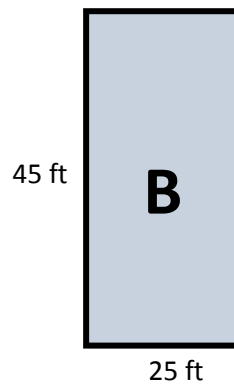
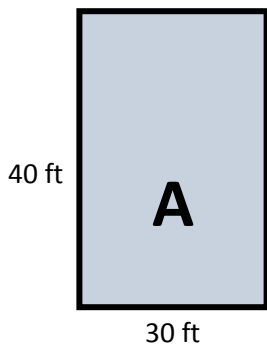
These figures can be represented tactilely with raised, thick, exterior and center lines to represent the height measured in feet. They can also be represented with thinner, raised lines to represent width and height in inches.

**Lesson 1: Resources – continued**

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The following pages are examples of activities /exercises from Lesson Practice, page 11.

Model	Length	Width	Perimeter	Area
A	40 ft	30 ft	140 ft	1200 ft <sup>2</sup>
B	45 ft	25 ft	140 ft	
C	35	35	140 ft	
D	20	50	140 ft	



**Lesson 1: Resources– continued**

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