

6.0-6.1 Review

Find someone who can...

Name: Key

Describe what it means for two figures to be *similar*.

- ① All corresponding angles are congruent
- ② All corresponding sides are proportional

Describe the term *scale factor*.

The ratio of how the lengths of 2 similar figures relate to one another.

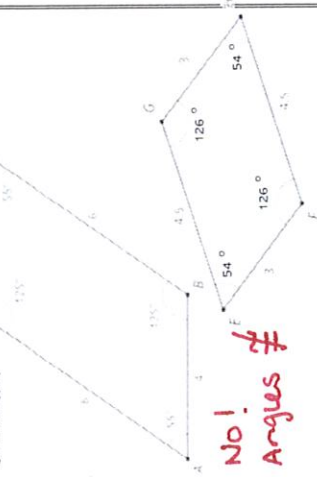
Simplify the ratio.

$$68 : 102 : 170$$

$$34 : 51 : 85$$

$$2 : 3 : 5$$

Determine whether the figures are similar.



No! Angles ≠

Name:

Name:

Name:

Name:

Solve the proportion.

$$\frac{6}{x} = \frac{9}{7+2x}$$

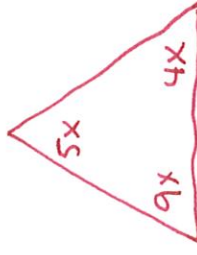
$$9x = 42 + 12x$$

$$\frac{-3x}{-3} = \frac{42}{-3}$$

$$x = -14$$

Name:

Find the angle measures of a triangle such that the ratio of their measures is 9:5:4.



$$9x + 5x + 4x = 180$$

$$18x = 180$$

$$x = 10$$

$$\text{Angles} = 90^\circ, 50^\circ, 40^\circ$$

Name:

Solve the proportion.

$$\frac{x-12}{7} = \frac{x+1}{x+1}$$

$$x^2 - 11x - 12 = 14$$

$$x^2 - 11x - 26 = 0$$

$$(x-13)(x+2) = 0$$

$$x = 13, -2$$

Name:

A couple is refinishing their home. They know that their dining room and their living room are similar rectangles that have a scale factor of 3:5. They needed 84 feet of baseboard trim to complete the smaller room. How much baseboard trim will they need to purchase to complete the larger room?

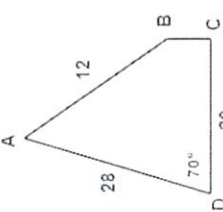
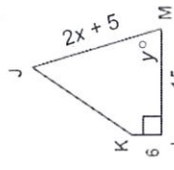
$$\frac{3}{5} = \frac{84}{B}$$

$$3B = 420$$

$$B = 140$$

Name:

Given that $JKLM \sim ABCD$, find the values of x and y .



$$\frac{15}{20} = \frac{2x+5}{28}$$

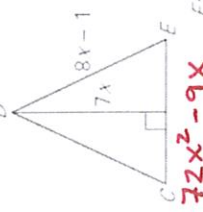
$$40x + 100 = 420$$

$$40x = 320$$

$$x = 8$$

Name:

Find x .



$$\frac{7x}{9x} = \frac{8x-1}{10x+1}$$

$$70x^2 + 7x = 72x^2 - 9x$$

$$0 = 2x^2 - 16x$$

$$0 = 2x(x-8)$$

$$x = 0$$

$$x = 8$$

Name:

Doesn't Make Sense