

NAME:
Period:

Similarity & Right Triangle Trigonometry 6.3

Ready, Set, Go!

Ready

Topic: Solving proportions

Solve each proportion. Show your work and check your solution.

1.

$$\frac{3}{4} = \frac{x}{20}$$

2.

$$\frac{x}{7} = \frac{18}{21}$$

3.

$$\frac{3}{6} = \frac{8}{x}$$

4.

$$\frac{9}{c} = \frac{6}{10}$$

5.

$$\frac{3}{4} = \frac{b+3}{20}$$

6.

$$\frac{7}{12} = \frac{a}{24}$$

7.

$$\frac{a}{2} = \frac{13}{20}$$

8.

$$\frac{3}{b+2} = \frac{6}{5}$$

9.

$$\frac{\sqrt{3}}{2} = \frac{\sqrt{12}}{c}$$

Set

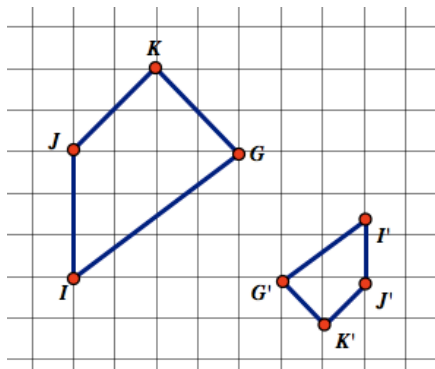
Topic: Proving similarity

Provide an argument to prove each conjecture, or provide a counterexample to disprove it.

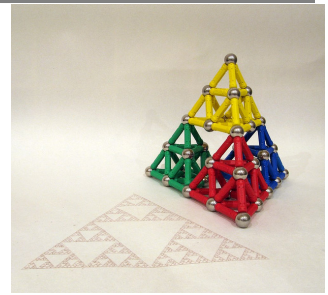
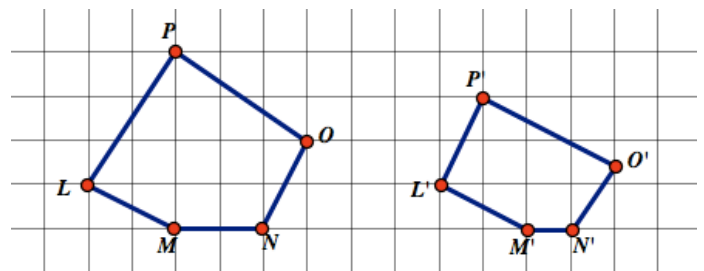
7. All right triangles are similar

8. All regular polygons are similar to other regular polygons with the same number of sides.

9. The polygons on the grid below are similar.



10. The polygons on the grid below are similar.



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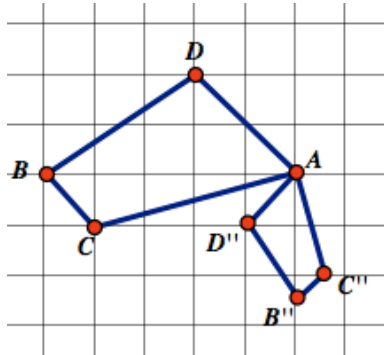
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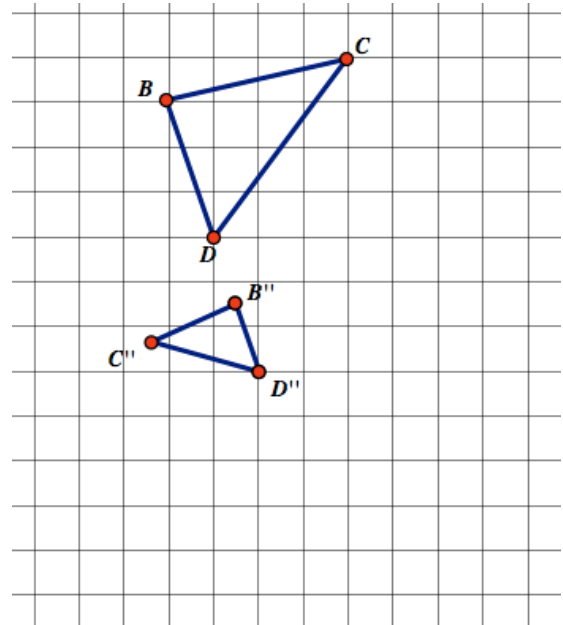
6.3

A sequence of two transformations occurred to create the two similar polygons. Justify each transformation and be as specific as you can about how the pre-image is transformed to create the image.

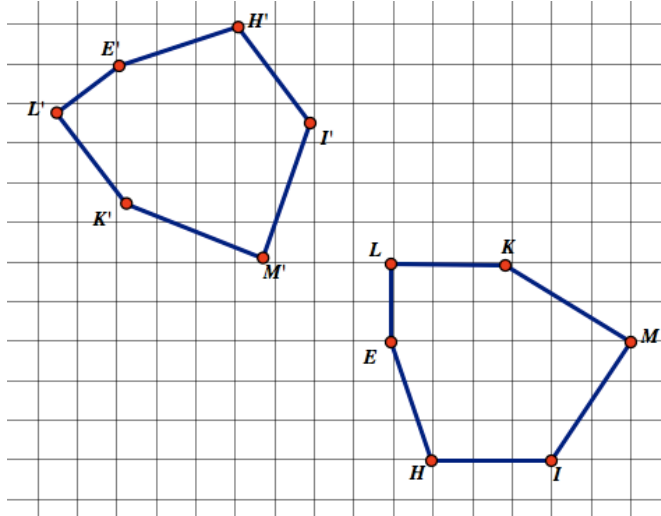
11.



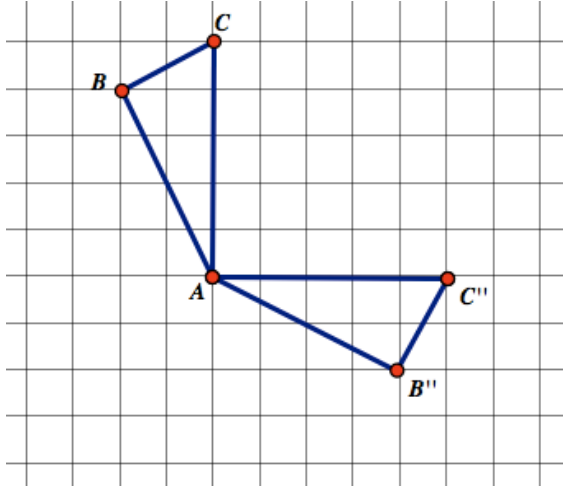
12.



13.



14.



NAME:

Period:

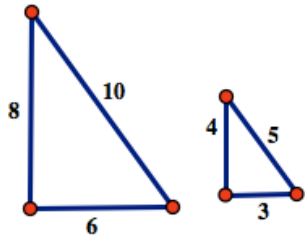
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Go

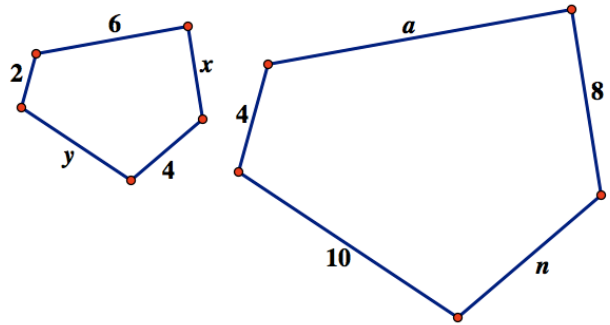
Topic: Ratios in dilated polygons

For each pair of similar polygons give three ratios that would be equivalent.

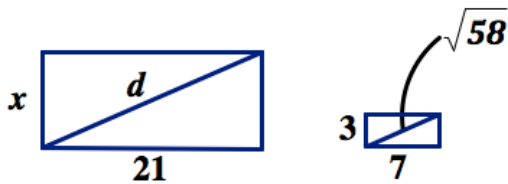
15.



16.



17.



18.

