

Geometry

Task Cards 8.G.4

20 Task Cards, Recording Sheet, Answer Sheet

8.G.4

Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.

Task cards 5 through 10 are displayed, each showing a coordinate plane with two similar figures and a prompt: "The following figures are similar. Describe a sequence that exhibits the similarity between them: 8.G.4"

Card 5: Two rectangles on a coordinate plane. The first rectangle has vertices at (1,1), (3,1), (3,3), and (1,3). The second rectangle has vertices at (2,2), (4,2), (4,4), and (2,4).

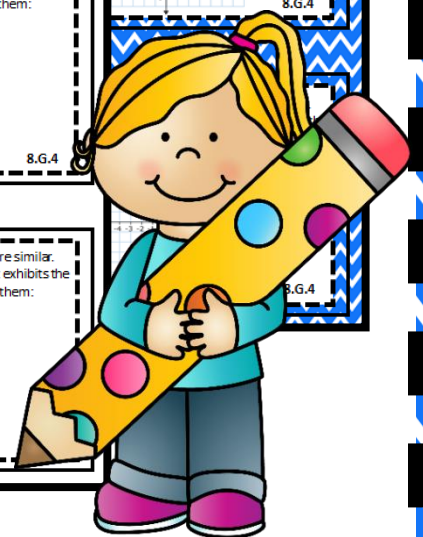
Card 6: Two rectangles on a coordinate plane. The first rectangle has vertices at (1,1), (3,1), (3,3), and (1,3). The second rectangle has vertices at (2,2), (4,2), (4,4), and (2,4).

Card 7: Two rectangles on a coordinate plane. The first rectangle has vertices at (1,1), (3,1), (3,3), and (1,3). The second rectangle has vertices at (2,2), (4,2), (4,4), and (2,4).

Card 8: Two rectangles on a coordinate plane. The first rectangle has vertices at (1,1), (3,1), (3,3), and (1,3). The second rectangle has vertices at (2,2), (4,2), (4,4), and (2,4).

Card 9: Two rectangles on a coordinate plane. The first rectangle has vertices at (1,1), (3,1), (3,3), and (1,3). The second rectangle has vertices at (2,2), (4,2), (4,4), and (2,4).

Card 10: Two rectangles on a coordinate plane. The first rectangle has vertices at (1,1), (3,1), (3,3), and (1,3). The second rectangle has vertices at (2,2), (4,2), (4,4), and (2,4).



Created by:
Math in the Midwest

8.G.4

Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.

1 True or False

All congruent figures
are also similar
figures.

8.G.4

2 True or False

All similar figures are
also congruent figures.

8.G.4

3 Determine if the
following scale factor
would be an
enlargement or a
reduction.

Scale Factor: 2.5

8.G.4

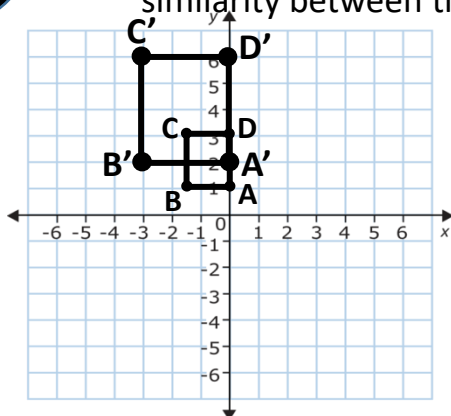
4 Determine if the
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enlargement or a
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Scale Factor: $\frac{1}{5}$

8.G.4

5

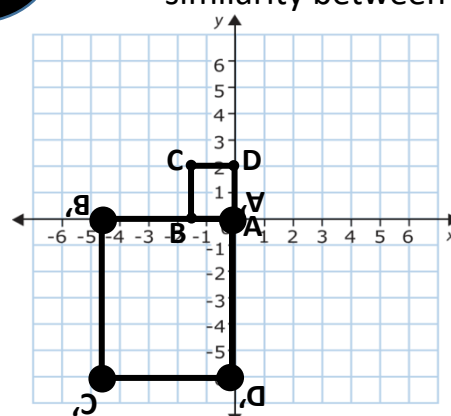
The following figures are similar.
Describe a sequence that exhibits the
similarity between them:



8.G.4

6

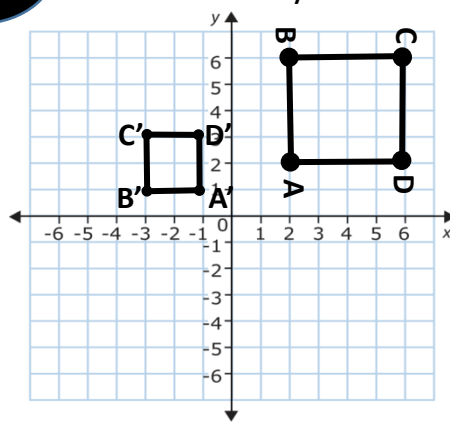
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8.G.4

7

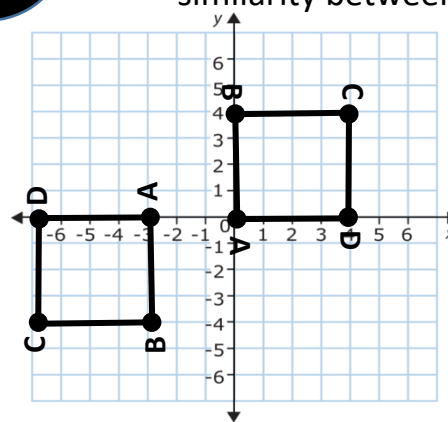
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8.G.4

8

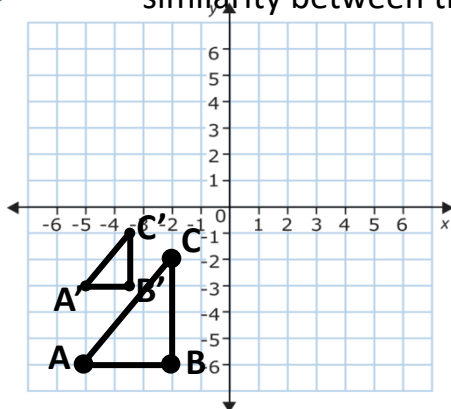
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8.G.4

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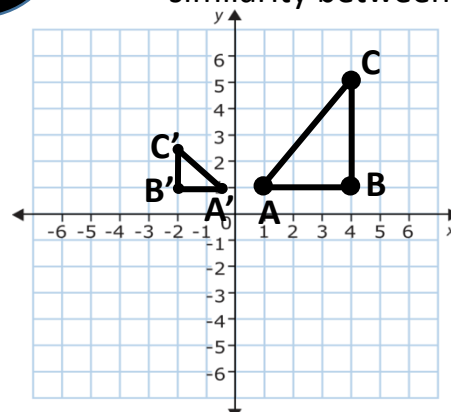
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10

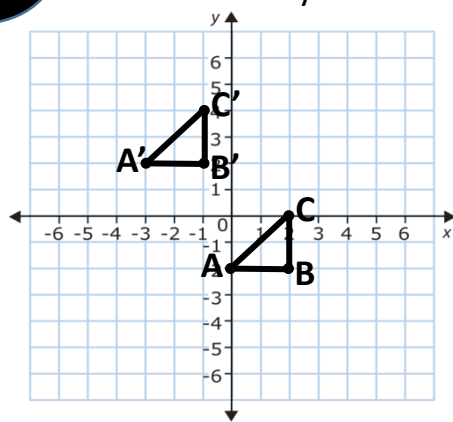
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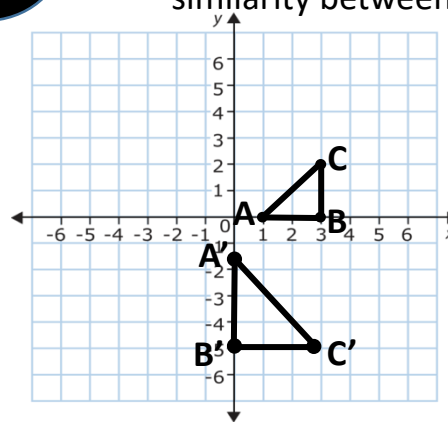
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8.G.4

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The following figures are similar.
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8.G.4

13

If $\triangle ABC$ is similar to $\triangle GHI$. Identify which angle corresponds with angle C.

8.G.4

14

If $\triangle ABC$ is similar to $\triangle GHI$. Identify which side corresponds with side GI.

8.G.4

15

True or False

If $\triangle JKL$ is similar to $\triangle MNO$.
Then angle J corresponds to angle O.

8.G.4

16

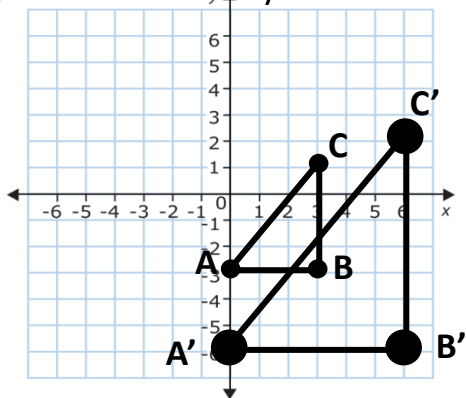
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If $\triangle JKL$ is similar to $\triangle MNO$.
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8.G.4

17

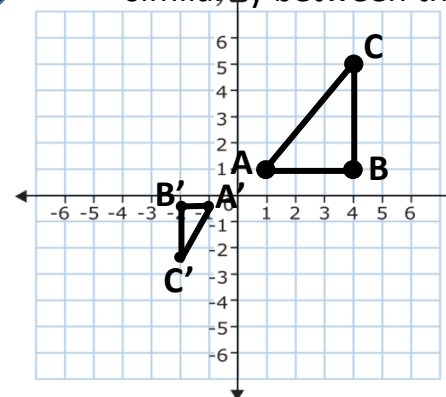
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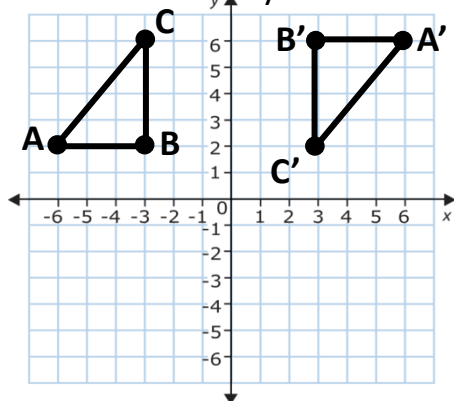
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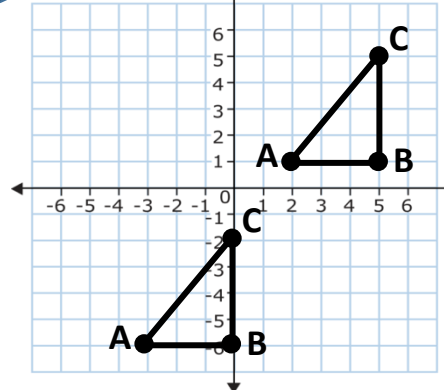
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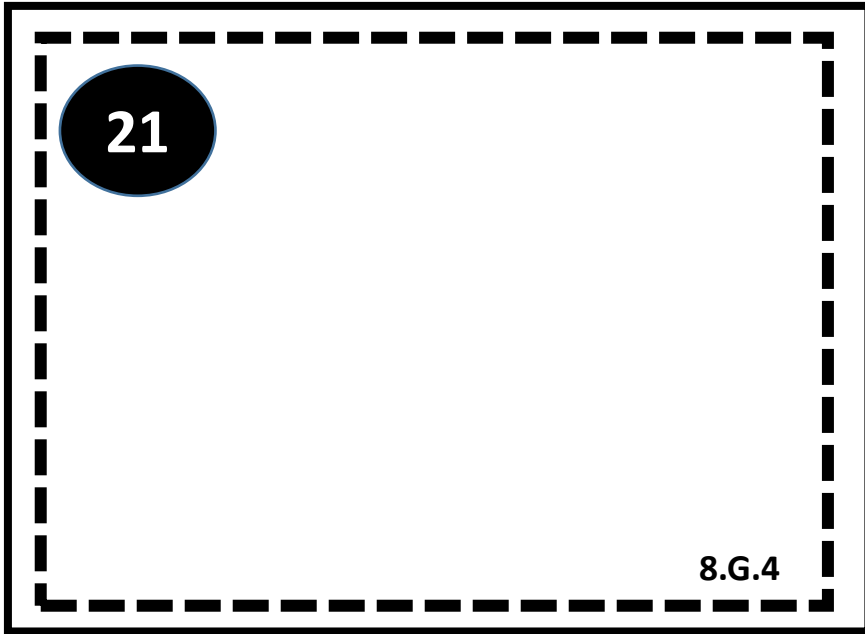
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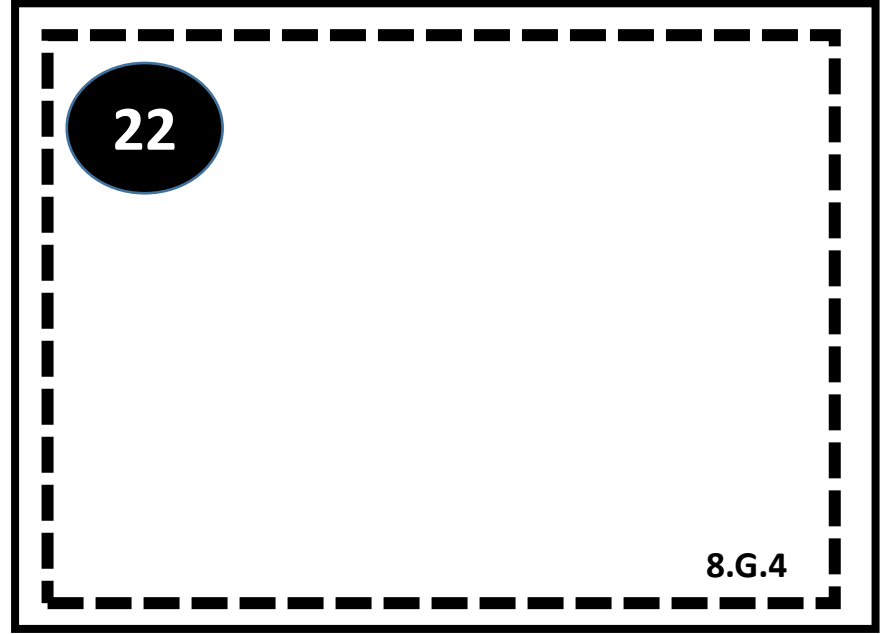


8.G.4



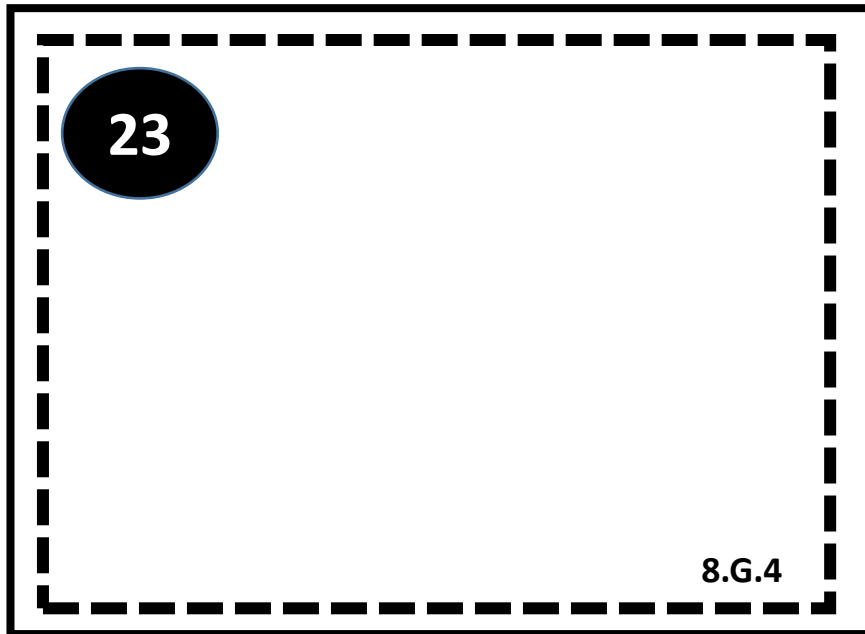
21

8.G.4



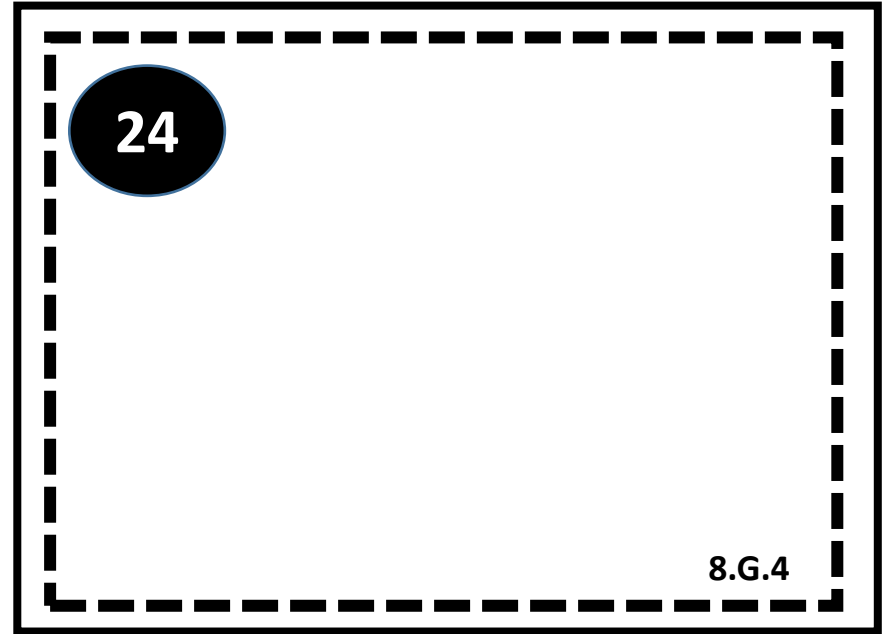
22

8.G.4



23

8.G.4



24

8.G.4

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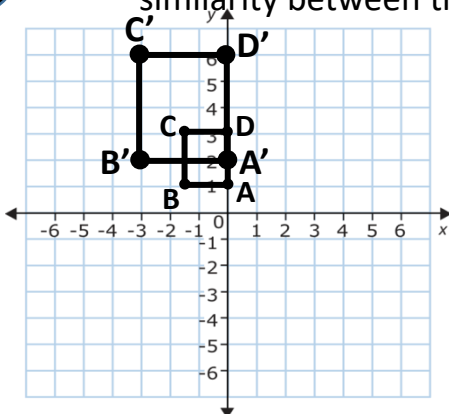
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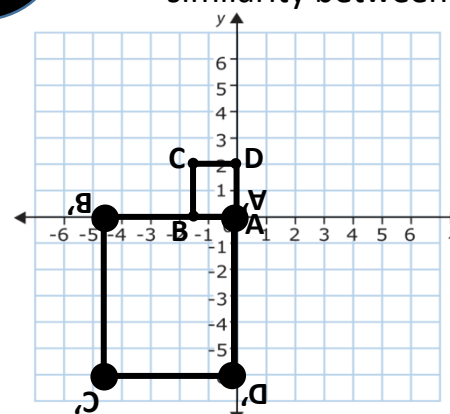
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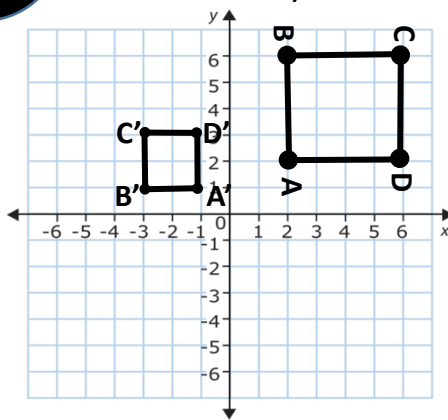
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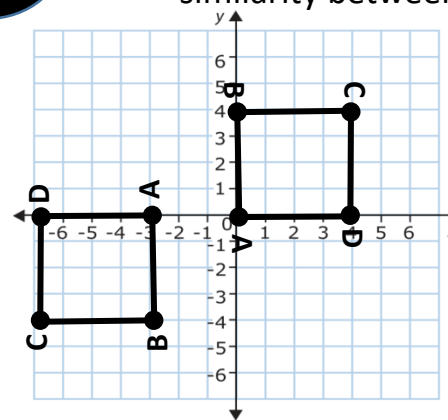
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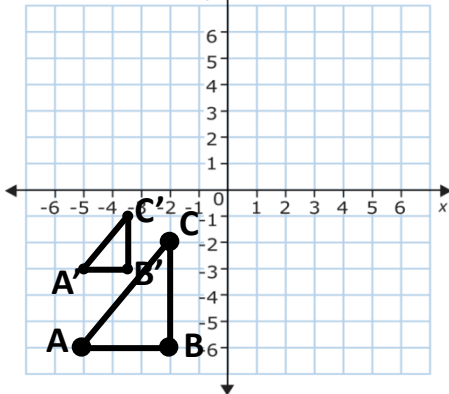
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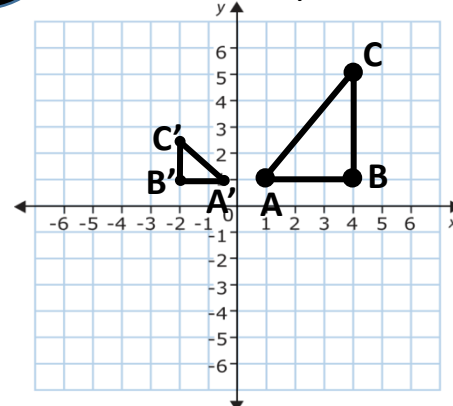
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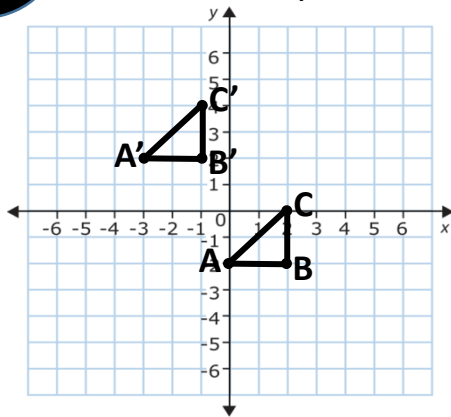
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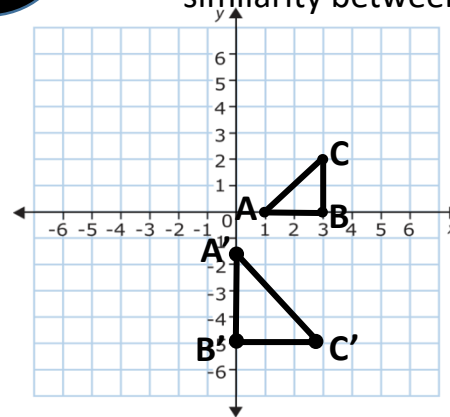
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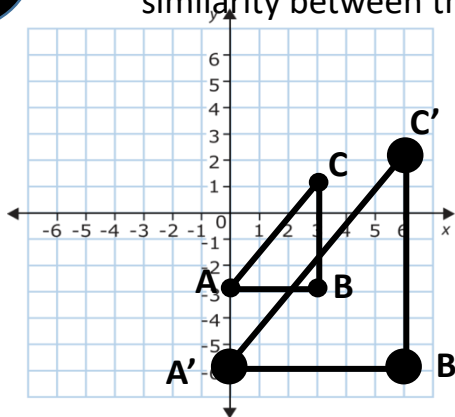
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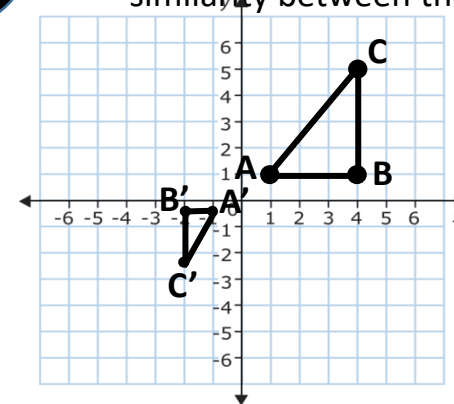
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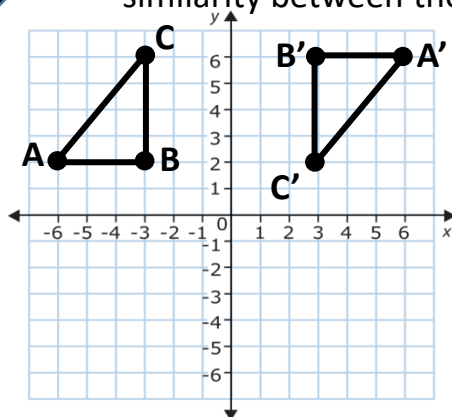
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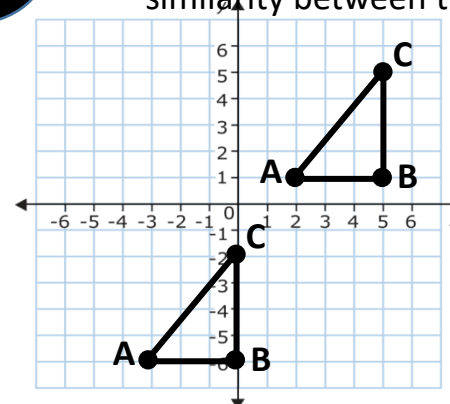
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8.G.4

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8.G.4

Name _____

Hour _____

8.G.4 Recording Sheet

1.	2.	3.
4.	5.	6.
7.	8.	9.

Name _____

Hour _____

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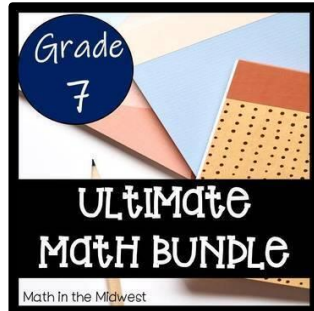
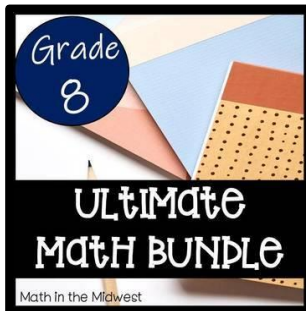
Answer Key

Number	Answer
1	<i>True</i>
2	<i>False</i>
3	<i>Enlargement</i>
4	<i>Reduction</i>
5	<i>Dilate by a scale factor of 2</i>
6	<i>Dilate by a scale factor of 3 Reflect over x axis</i>
7	<i>Rotate 90 degrees Counterclockwise then dilate by a sale factor of 0.5</i>
8	<i>Rotate 180 degrees Translate left 3 units</i>
9	<i>Dilate by a scale factor of 0.5</i>
10	<i>Reflect over the y axis then dilate by a scale factor of 0.5</i>

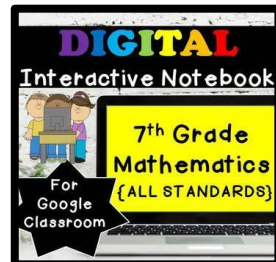
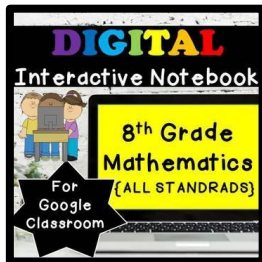
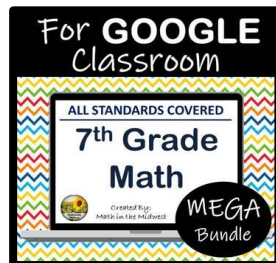
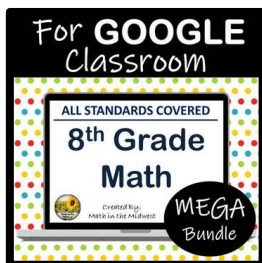
Number	Answer
11	<i>Translate left 3 units and up 4 units</i>
12	<i>Rotate 90 degrees clockwise and dilate by a scale factor of 1.5</i>
13	<i>Angle I</i>
14	<i>Side AC</i>
15	<i>False</i>
16	<i>True</i>
17	<i>Dilate by a scale factor of 2</i>
18	<i>Rotate 180 degrees then dilate by a scale factor of 0.5</i>
19	<i>Rotate 180 degrees then reflect across the x axis</i>
20	<i>Translate down 7 units and left 5 units</i>

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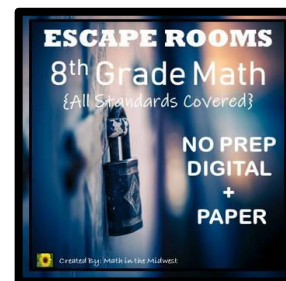
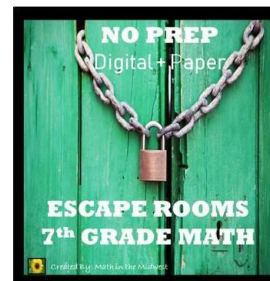
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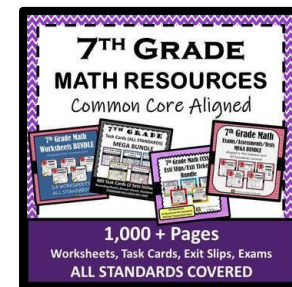
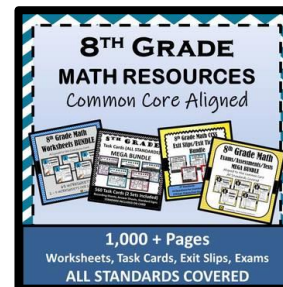
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