Math Practice - Grade 8

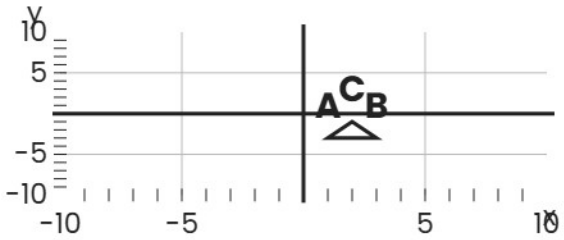
M8 Transformations, congruence, similarity

M8 8.G.A.1, 8.G.A.2, 8.G.A.3, 8.G.A.4

Name: _____ Date: _____

Translate, rotate, reflect, or dilate a figure on a coordinate grid and write the new coordinates. Name the sequence of moves that takes one figure to another. Tell whether two figures are congruent or similar and give the scale factor.

1 Reflect the triangle over the x-axis. Write the new coordinates of point B.



Point B ☐

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2 Which sequence of moves takes figure 1 to figure 2?

Figure 1

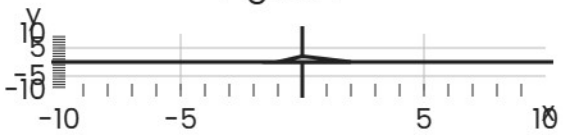

Figure 2



A. Reflect over the x-axis, then rotate 180 degrees
B. Translate 3 right, then reflect over the x-axis
C. Reflect over the y-axis, then translate 2 down

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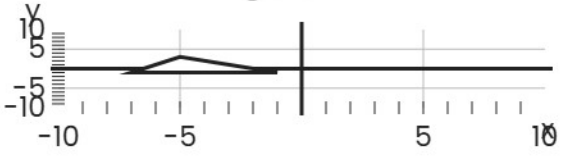
3 Are the two figures congruent or similar? What is the scale factor?

Figure 1



Figure 2



Congruent ☐ Similar ☐ Scale factor ☐

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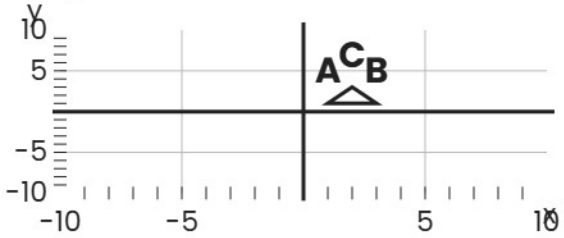
M8 Transformations, congruence, similarity

M8 8.G.A.1, 8.G.A.2, 8.G.A.3, 8.G.A.4

Name: _____ Date: _____

Translate, rotate, reflect, or dilate a figure on a coordinate grid and write the new coordinates. Name the sequence of moves that takes one figure to another. Tell whether two figures are congruent or similar and give the scale factor.

1 **Dilate the triangle by a scale factor of 2 about the origin. Write the new coordinates of point C.**



Point C ☐

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2 **Which sequence of moves takes figure 1 to figure 2?**

Figure 1

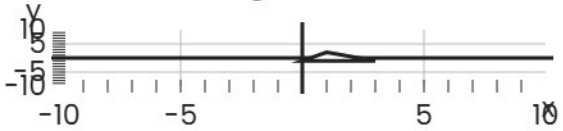

Figure 2



A. Translate 3 right, then reflect over the x-axis
B. Reflect over the x-axis, then rotate 180 degrees
C. Reflect over the y-axis, then translate 2 down

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3 **Are the two figures congruent or similar? What is the scale factor?**

Figure 1

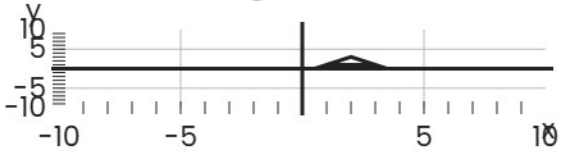
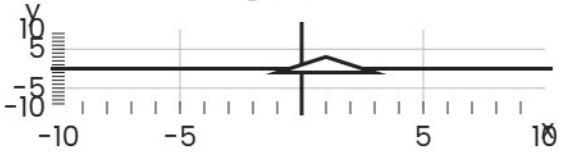


Figure 2



Congruent ☐ Similar ☐ Scale factor ☐

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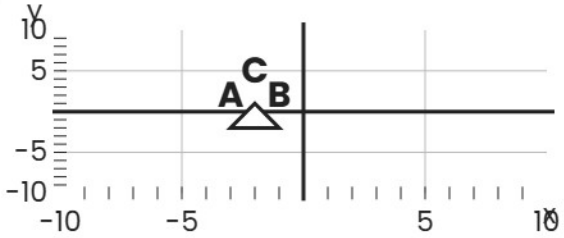
M8 Transformations, congruence, similarity

M8 8.G.A.1, 8.G.A.2, 8.G.A.3, 8.G.A.4

Name: _____ Date: _____

Translate, rotate, reflect, or dilate a figure on a coordinate grid and write the new coordinates. Name the sequence of moves that takes one figure to another. Tell whether two figures are congruent or similar and give the scale factor.

1 Translate the triangle 3 units left and 3 units down. Write the new coordinates of point A.



Point A ☐

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2 Which sequence of moves takes figure 1 to figure 2?

Figure 1

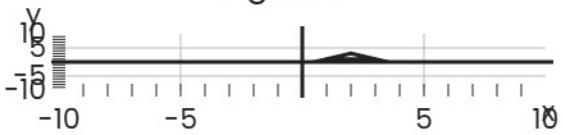

Figure 2



A. Reflect over the x-axis, then rotate 180 degrees
B. Translate 2 left, then reflect over the x-axis
C. Reflect over the y-axis, then translate 2 down

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3 Are the two figures congruent or similar? What is the scale factor?

Figure 1

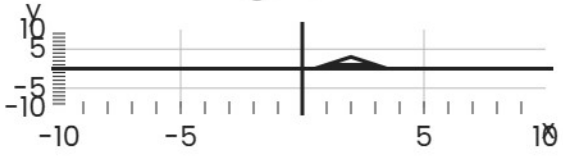
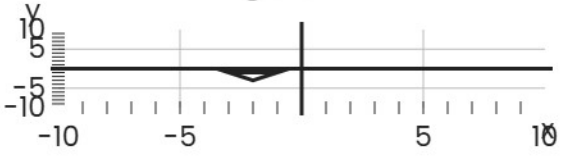


Figure 2



☐ Congruent ☐ Similar

Scale factor ☐