

Assignment

LESSON 3: From Here to There

Write

Explain how to use transformations to determine if figures are congruent or similar.

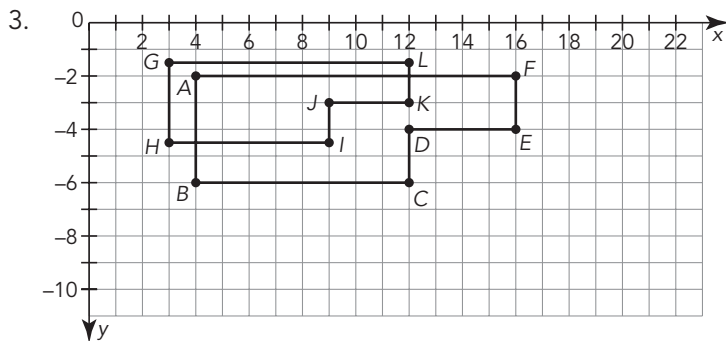
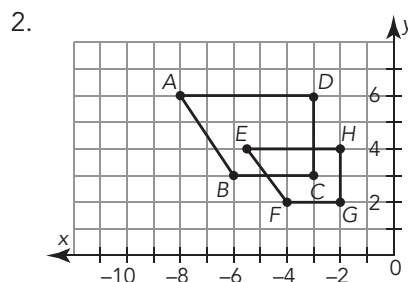
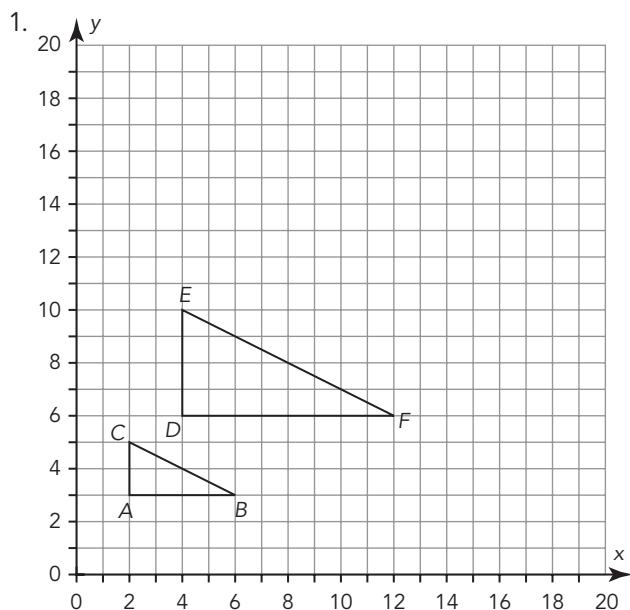
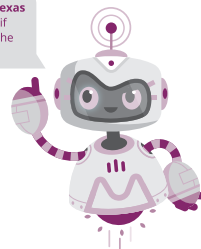
Remember

Images created from the same pre-image are always similar figures.

Practice

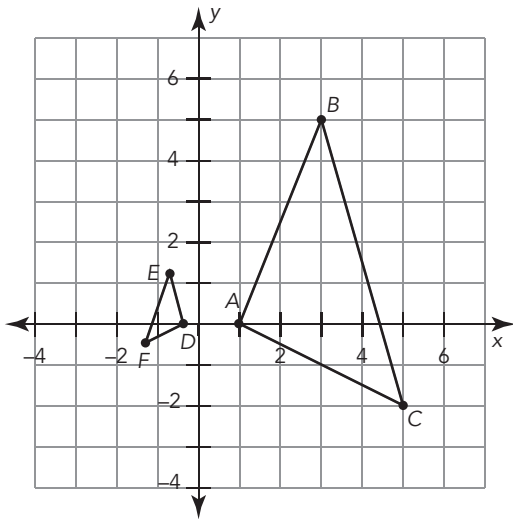
Verify that the two figures are similar by describing a dilation that maps one figure onto the other. Be sure to include the scale factor.

Visit livehint.com/texas or use this QR code if you need a hint on the Practice questions.

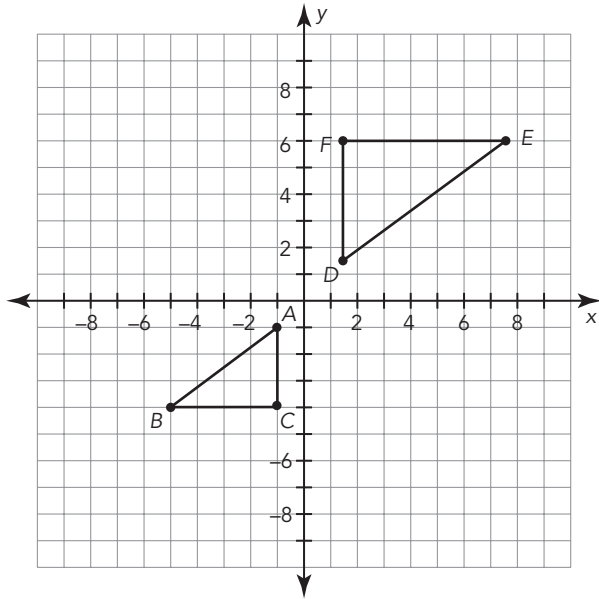


Verify that the figures are similar by describing a sequence of transformations that maps $\triangle ABC$ onto $\triangle DEF$. Be as specific as possible.

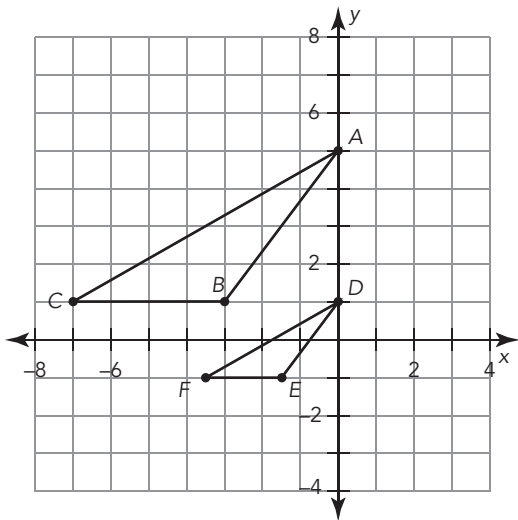
4.



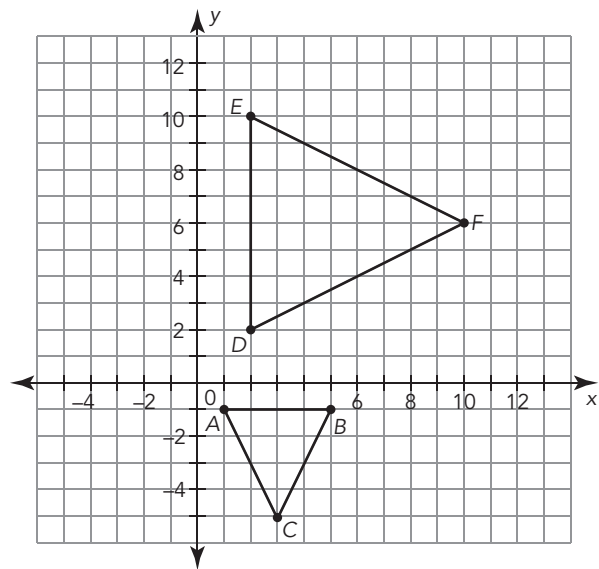
5.



6.



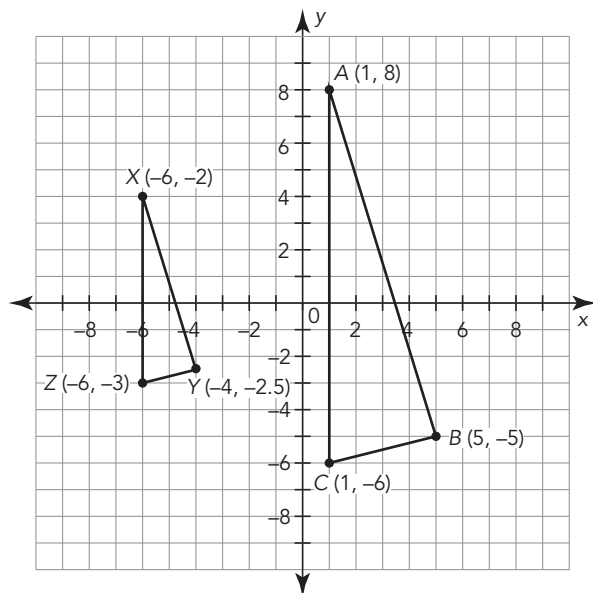
7.



Stretch

Triangle XYZ is the image after a dilation of Triangle ABC.

1. Determine the scale factor.
2. Determine the center of dilation.
3. Explain how you could verify that the ratio of corresponding sides is constant.



Review

1. Give the coordinates of $\triangle A'B'C'$ after a transformation of $\triangle ABC$ with the coordinates A (6, -3), B (9, 5), and C (5, 6). Use the origin as the center of dilation or rotation, as needed.
 - a. Dilate $\triangle ABC$ by a scale factor of $\frac{1}{3}$.
 - b. Dilate $\triangle ABC$ by a scale factor of 4.
 - c. Rotate $\triangle ABC$ 180 degrees.
 - d. Reflect $\triangle ABC$ across the x-axis.
2. Identify the constant of proportionality.
 - a. Eight candy bars cost \$6.00. Calculate the cost per candy bar.
 - b. In the equation $y = 4x + 7$, x is the number of items and y is the total cost. What is the unit rate? Include units in your response.