

### CHECK YOUR UNDERSTANDING

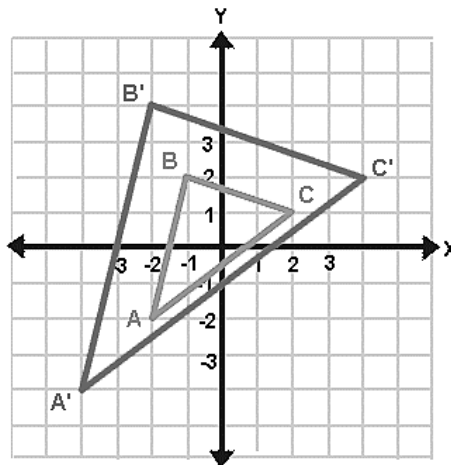
*Directions: Work with your partner and complete all problems.*

**Target 6A:** Understand similarity in terms of transformations in the coordinate plane.

- Determine if the graph illustrates an enlargement or reduction and find the scale factor from  $\triangle ABC$  to  $\triangle A'B'C'$ .

Enlargement or Reduction? \_\_\_\_\_

Scale Factor: \_\_\_\_\_



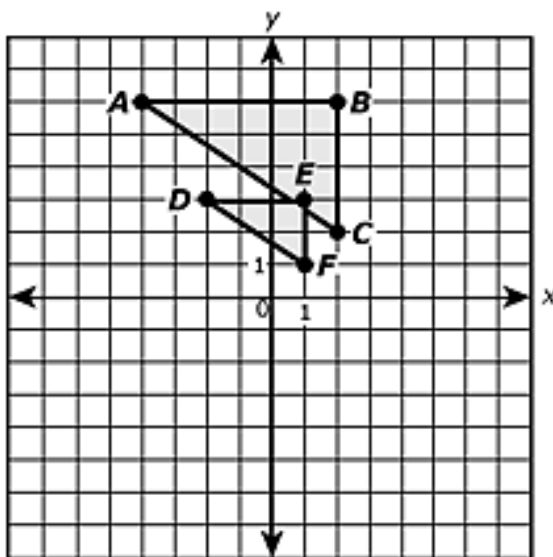
Use the following information to answer questions 2 and 3. In the coordinate plane shown,  $\triangle ABC$  has vertices  $A(-4, 6)$ ,  $B(2, 6)$ , and  $C(2, 2)$ . The figure transforms (dilates) from  $\triangle DEF$  to  $\triangle ABC$ .

- Determine the center of dilation:

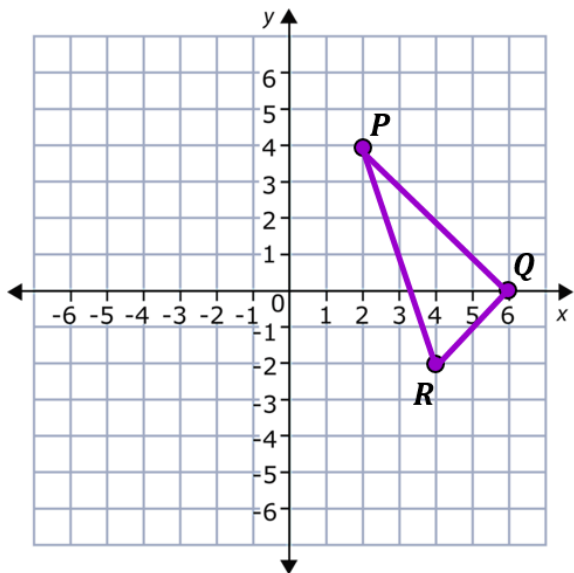
\_\_\_\_\_

- Determine the scale factor:

\_\_\_\_\_



4. Graph the image of  $\Delta P'Q'R'$  after dilation with scale factor of  $\frac{1}{2}$ , centered at  $(0,0)$ . Write the coordinates of pre-image and the image in the space provided. Label your points.



P	( ____, ____)
Q	( ____, ____)
R	( ____, ____)

P'	( ____, ____)
Q'	( ____, ____)
R'	( ____, ____)

5. Complete a), b), and c) using the coordinate plane below:

- a) Graph  $\Delta ABC$  with vertices at:  $A(-8, -8)$ ,  $B(4, 4)$ , and  $C(8, 0)$ . Label your points.

- b) Dilate  $\Delta ABC$  by a scale factor of  $\frac{1}{4}$ , centered at  $(0,0)$ .

A'	( ____, ____)
B'	( ____, ____)
C'	( ____, ____)

- c) Graph  $\Delta A'B'C'$ . Label your points.

