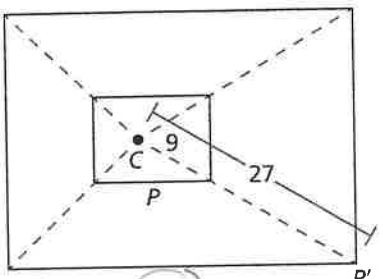
Name _____ Date _____

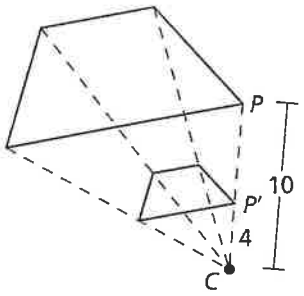
In Exercises 1 and 2, find the scale factor of the dilation. Then tell whether the dilation is a *reduction* or an *enlargement*.

1.



$\frac{27}{9} = 3$

2.

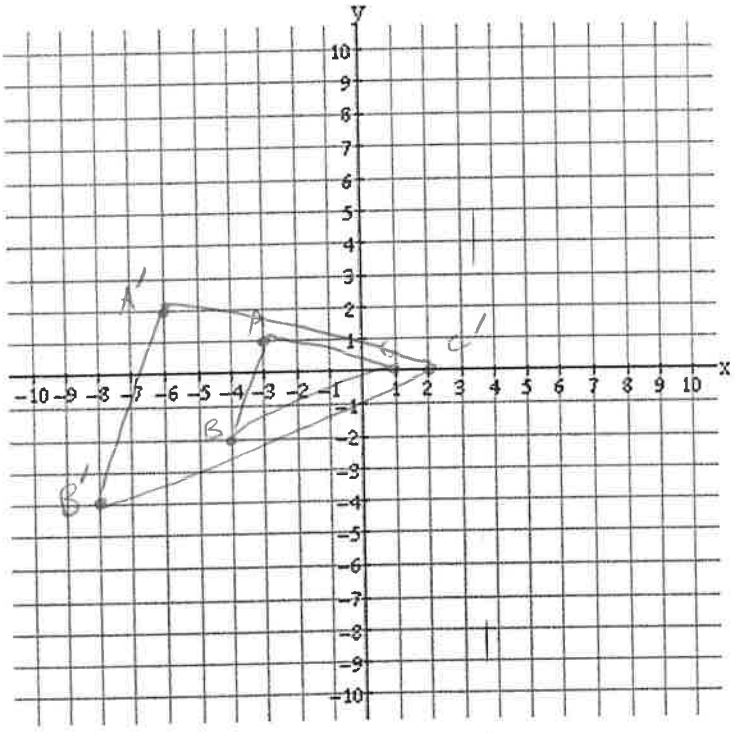


$\frac{4}{10} = \frac{2}{5}$

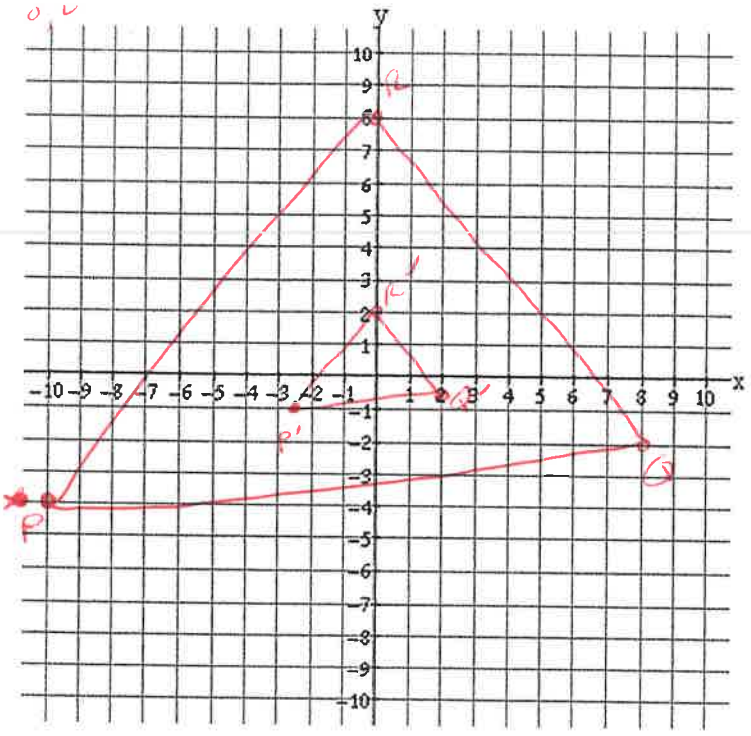
In Exercises 3 through 5, graph the polygon and its image after a dilation with a scale factor *k*.

3. A(-3, 1) B(-4, -2) C(1, 0); k = 2

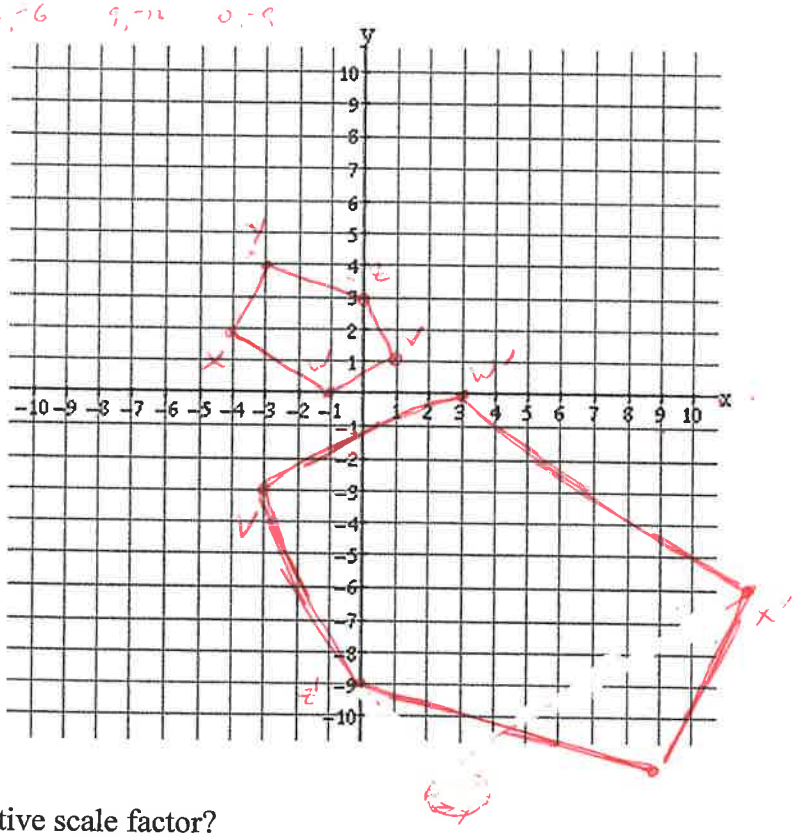
-6, 2 -8, -4 2, 0



4. P(-10, -4) Q(8, -2) R(0, 8); k = 0.25



5. $V(1, 1), W(-1, 0), X(-4, 2), Y(-3, 4), Z(0, 3); k = -3$



What is the effect of a negative scale factor?

CAUSES A 180° ROTATION

$(x, y) \rightarrow (-x, -y)$

Name _____ Date _____

A triangle is defined by the following points:
A(-4, -2), B(3, -3), C(-1, -5).
Perform a dilation with a scale factor of 2 and a vanishing point of (-8, -7).