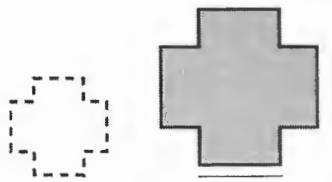
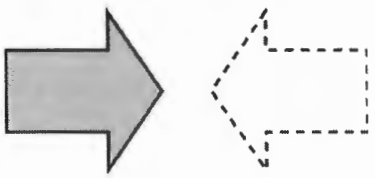
Name Answers Date

# 2.7 – Dilations (Part 2)

Tell whether the dashed figure is a dilation of the solid figure. Explain your reasoning.

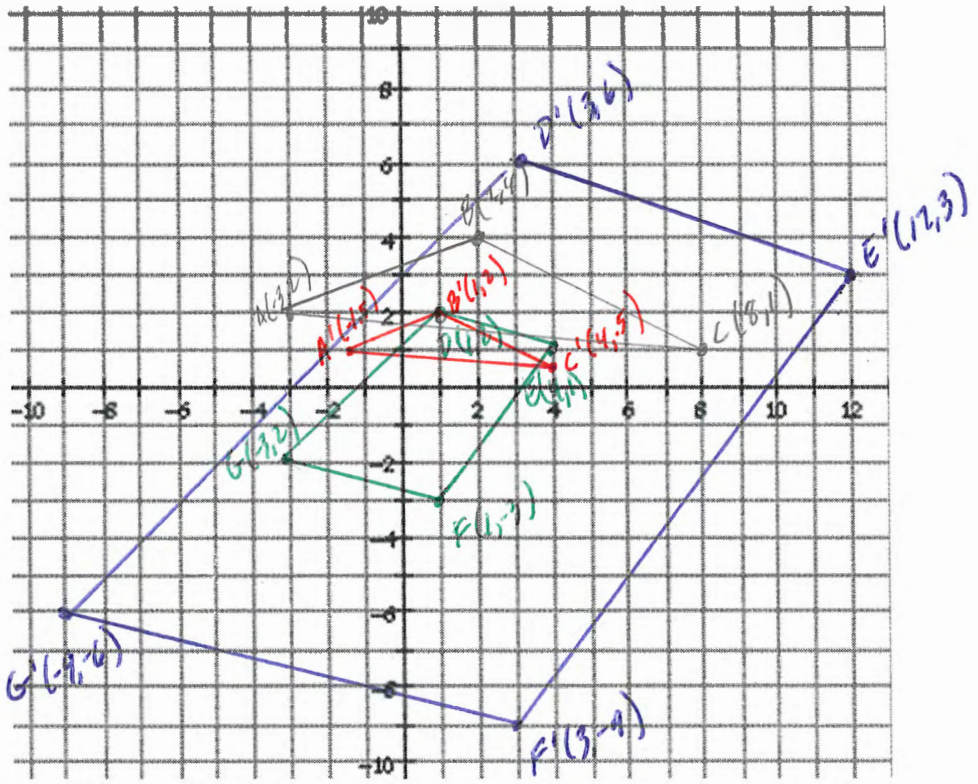
1) 

Yes. It is a reduction of the solid figure.

2) 

No. It is a reflection.

Use the following coordinate plane for #3 & 4.




The vertices of a figure are given. Draw the figure above **AND** its image after a dilation with the given scale factor of $k$. **Identify** the type of dilation. (Note: You may want to use different colors for the different images)

3) $A(-3, -2)$, $B(2, 4)$, $C(8, 1)$; $k = \frac{1}{2}$

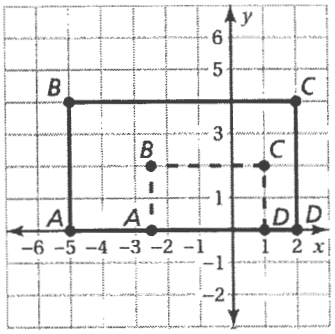
$A'(-1.5, -1)$, $B'(1, 2)$, $C'(4, .5)$

4) $D(1, 2)$, $E(4, 1)$, $F(1, -3)$, $G(-3, -2)$; $k = 3$

$D'(3, 6)$, $E'(12, 3)$, $F'(3, -9)$, $G'(-9, -6)$

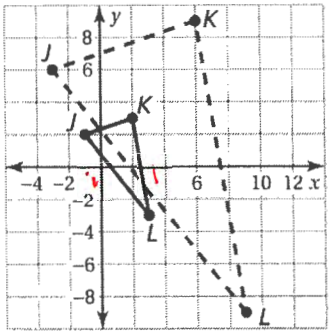
For #5-8, the **dashed figure** is a dilation of the original solid figure. Identify the type of dilation and find the scale factor.

5)



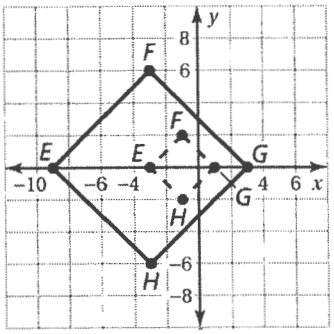

Reduction
$k = \frac{1}{2}$

6)



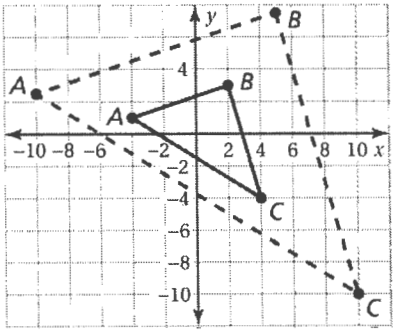

Enlargement
$k = 3$

7)




Reduction
$k = \frac{1}{3}$

8)




Enlargement
$k = 2.5$

9) The vertices of a figure are $P(1, 2)$, $Q(3, 4)$, and $R(-1, 6)$. Dilate with respect to the origin using a scale factor of 2 and then translate 4 units right and 3 units down. Find the coordinates of the figure after the transformations given.

P"(6,1)
Q"(10,5)
R"(2,9)