

Name: _____

Period: _____

Checkpoint 6A

Integrated Math 2

Answer the questions thoroughly including any necessary math or explanations.

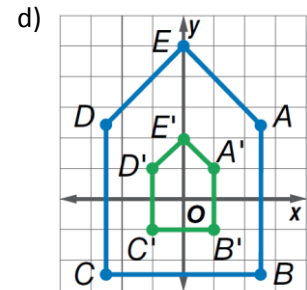
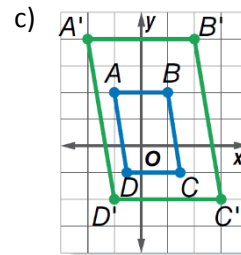
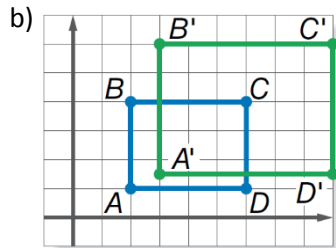
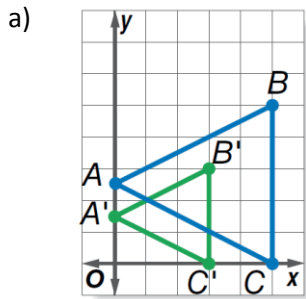
1) Determine the lengths of the dilated segments given the pre-image length and the scale factor.

a) \overline{BC} is 13.5 units long and the segment is dilated by a scale factor of $k = 0.75$.

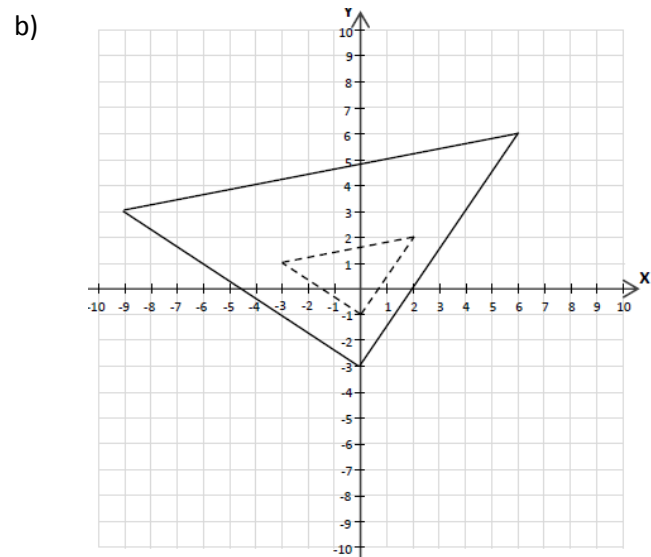
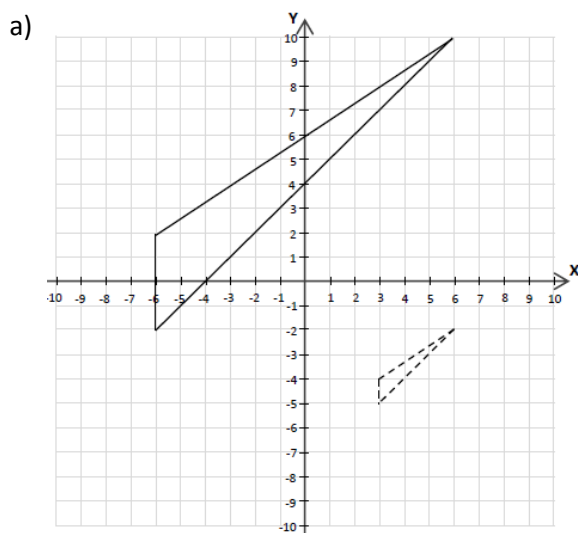
b) \overline{FG} is 19 units long and the segment is dilated by a scale factor of $k = 1.5$.

c) \overline{GH} is 15.3 units long and is dilated by a scale factor of $\frac{2}{3}$.

2) On each graph, one figure is a dilation of the other. Find the scale factor of each dilation and classify it as an enlargement or as a reduction.

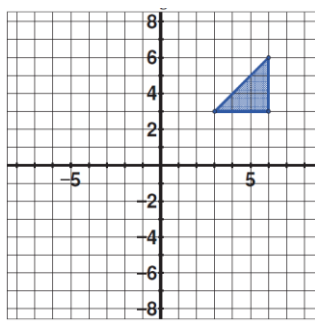


3) Determine the center of each dilation.

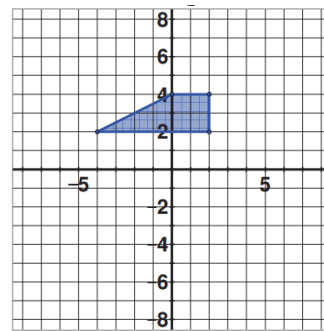


4) Dilate the graphed figure with a center of $(0, 0)$ and the given scale factor.

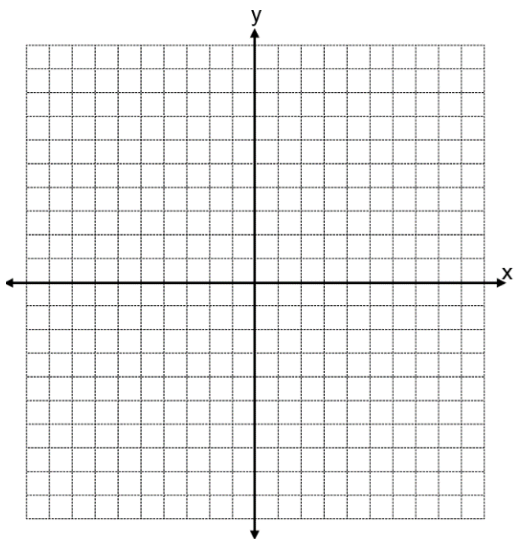
a) Scale factor: $\frac{1}{3}$



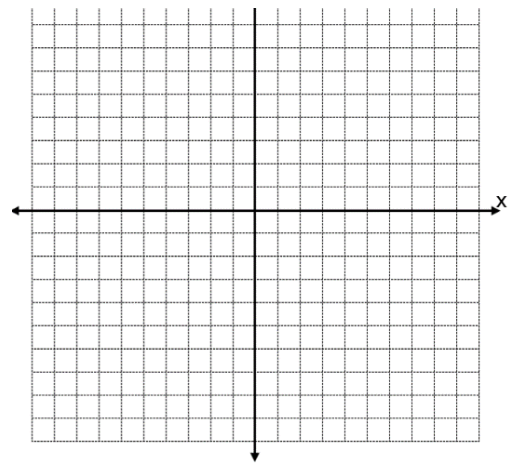
b) Scale factor: $\frac{3}{2}$



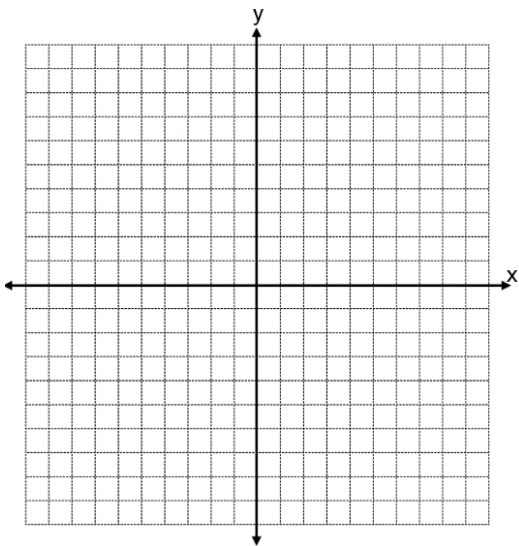
5) Graph $\triangle BDE$ with the following vertices: B $(-1, 0)$, D $(-5, -6)$, and E $(3, -4)$. Graph an image of a dilation with a center at $(0, 0)$ and a scale factor of 2 . Label the vertices of the image.



6) Graph $\triangle TUV$ with the following vertices: T $(-9, -3)$, U $(-6, -6)$, and V $(-2, -3)$. Graph an image of a dilation with a center at $(0, 0)$ and a scale factor of $\frac{1}{3}$. Label the vertices of the image.



7) Graph $\triangle HJK$ with the following vertices: H $(0, 2)$, J $(3, 1)$, and K $(0, -4)$. Graph an image under a dilation with a center at $(0, 0)$ and a scale factor of 3 . Label the vertices of the image.



8) Graph $\square ABCD$ with the following vertices: A $(-6, 2)$, B $(4, 4)$, C $(7, -2)$, and D $(-2, -4)$. Graph an image of a dilation with a center at $(0, 0)$ and a scale factor of $\frac{1}{2}$. Label the vertices of the image.

