



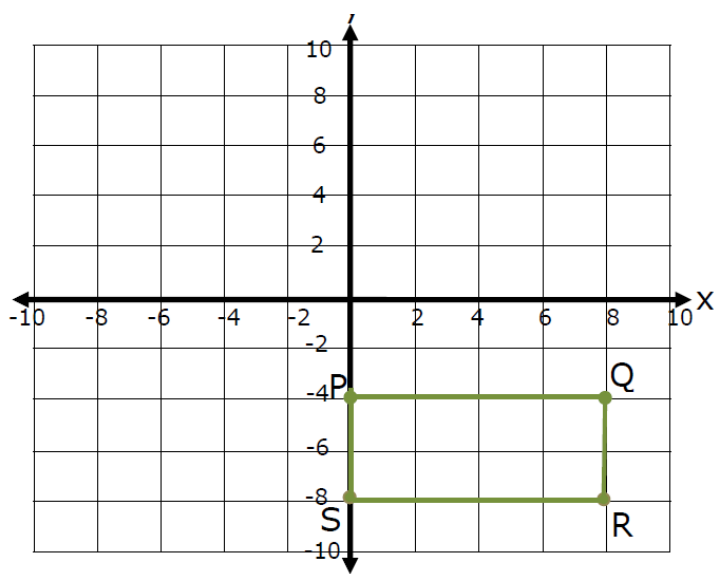
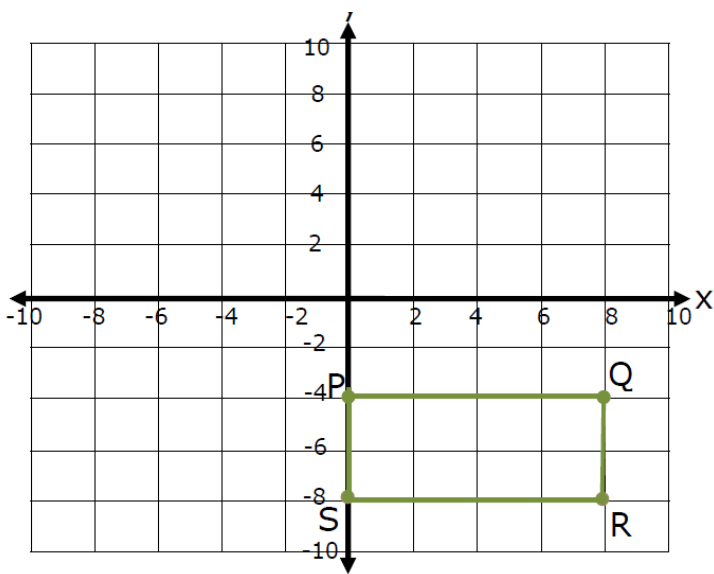
Name: _____ Date: _____

GCC Geometry Unit #5 Day 8 Similarity and Dilations

1)

a) Graph the image of quadrilateral PQRS after $D_{\text{Origin}, \frac{1}{2}}$

b) Graph the image of quadrilateral PQRS after $D_{(-6, 4), \frac{1}{2}}$



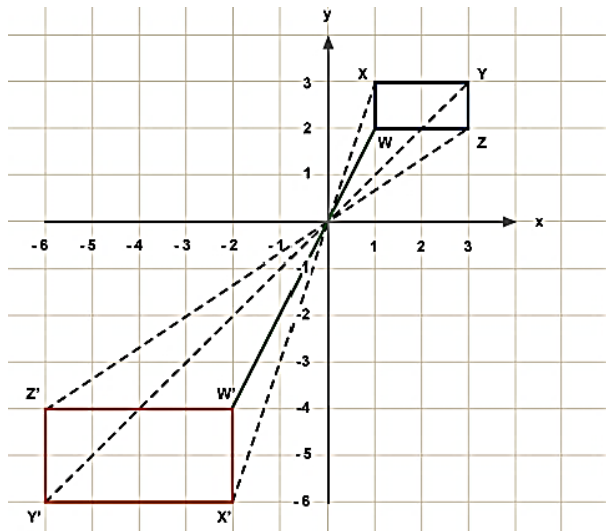
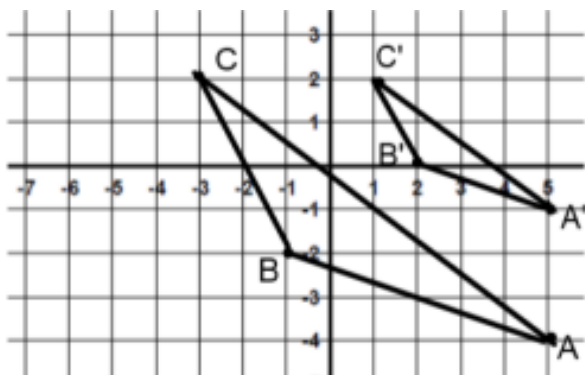
2) a) What is the scale factor of this dilation? _____

b) Rewrite with a positive scale factor as a composition of transformations.

3) Triangle A'B'C' is the image of triangle ABC after a dilation. Use a straight edge to find the center of dilation and the scale factor of the dilation.

Center of dilation _____

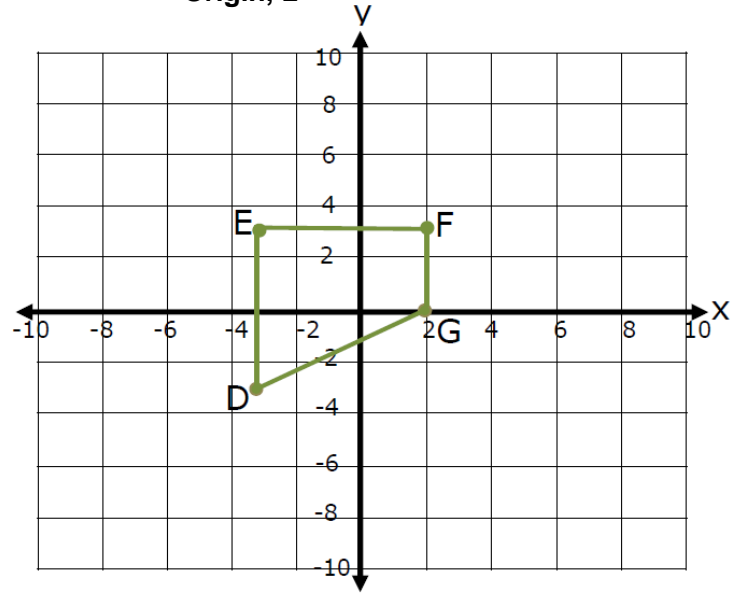
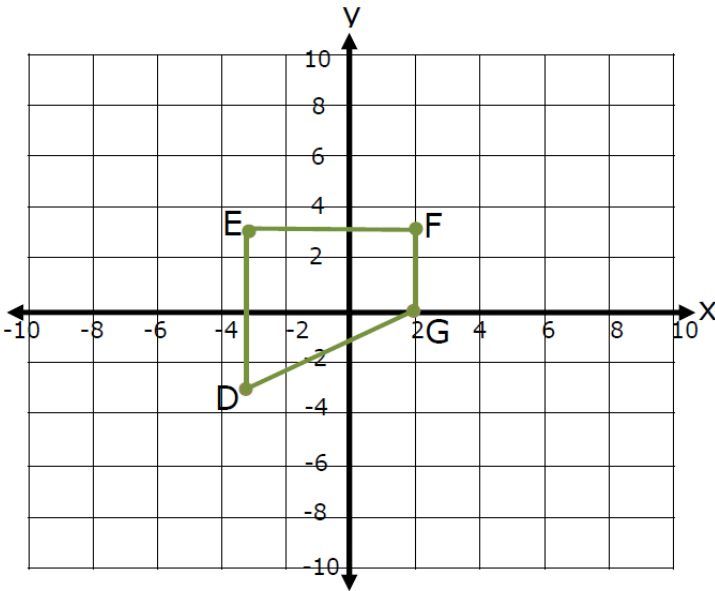
Scale Factor _____



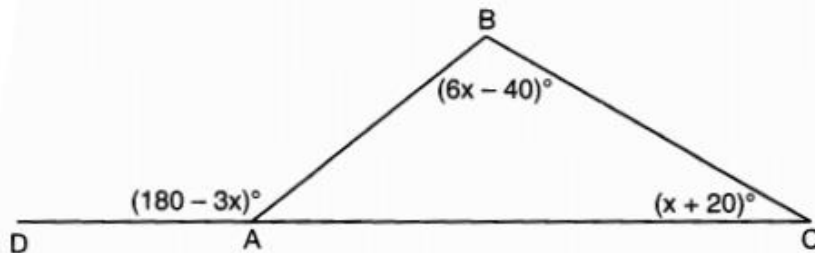
4) D(-3, -3) E(-3, 3) F(2,3) G(2,0)

a) Graph the image of quadrilateral DEFG after $D_{\text{origin},3}$

b) Graph the image of quadrilateral DEFG after $D_{\text{origin},-2}$



5) In $\triangle ABC$ shown below, side \overline{AC} is extended to point D with $m\angle DAB = (180 - 3x)^\circ$, $m\angle B = (6x - 40)^\circ$, and $m\angle C = (x + 20)^\circ$.



What is $m\angle BAC$?

- (1) 20° (3) 60°
(2) 40° (4) 80°

6) Which transformation would *not* carry a square onto itself?

- (1) a reflection over one of its diagonals
(2) a 90° rotation clockwise about its center
(3) a 180° rotation about one of its vertices
(4) a reflection over the perpendicular bisector of one side