Directions: Perform the dilation given the scale factor and center of dilation.
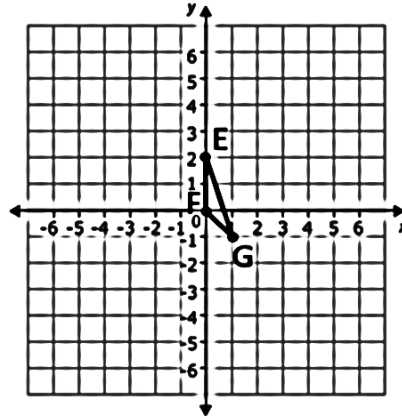
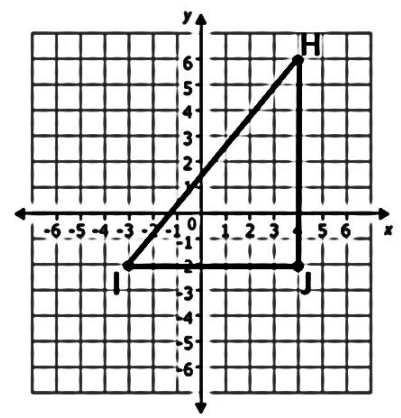1) Scale Factor: 2
   Center: Origin
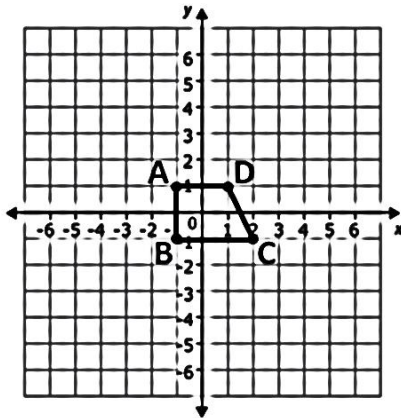
2) Scale Factor: 3
   Center: Origin
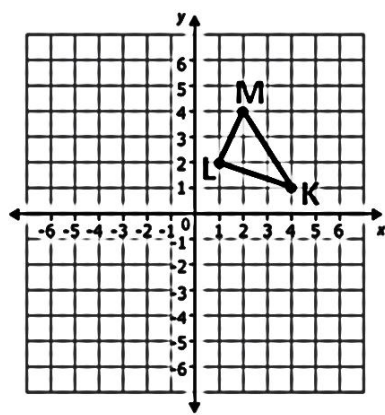

3) Scale Factor: $\frac{1}{2}$
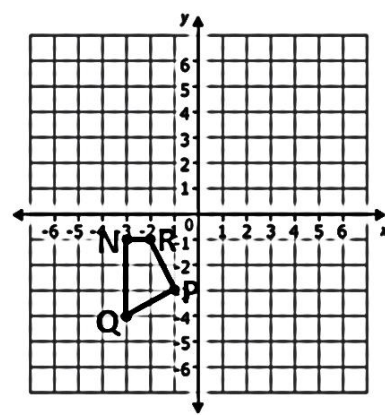   Center: Origin

4) Scale Factor: 2
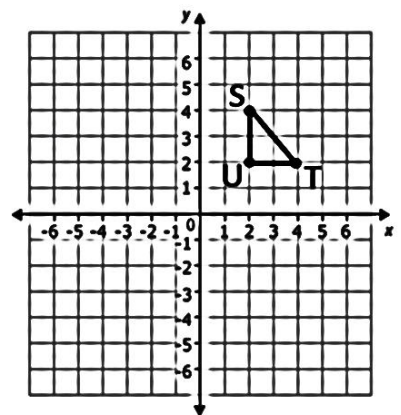   Center: (6, 4)

5) Scale Factor: 3
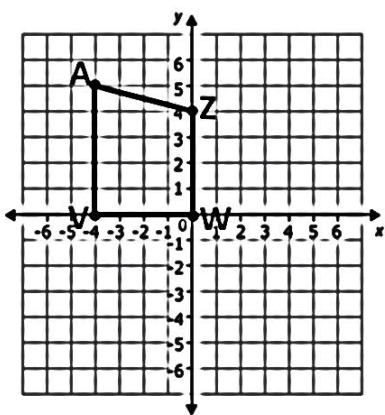   Center: (−4, −5)

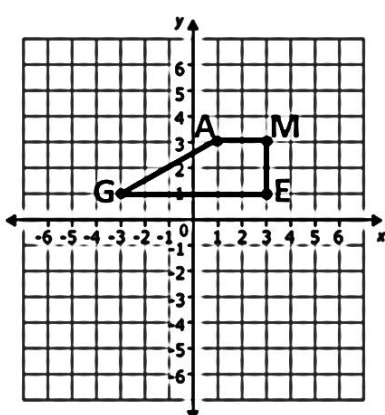6) Scale Factor: $\frac{1}{2}$
   Center: (−6, 2)

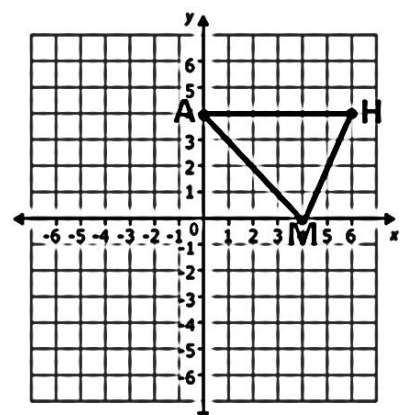7) Scale Factor: $\frac{1}{4}$
   Center: Origin
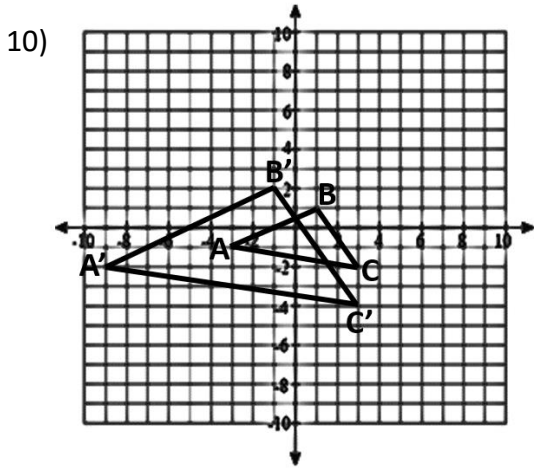

8) Scale Factor: 2
   Center: (0, 2)

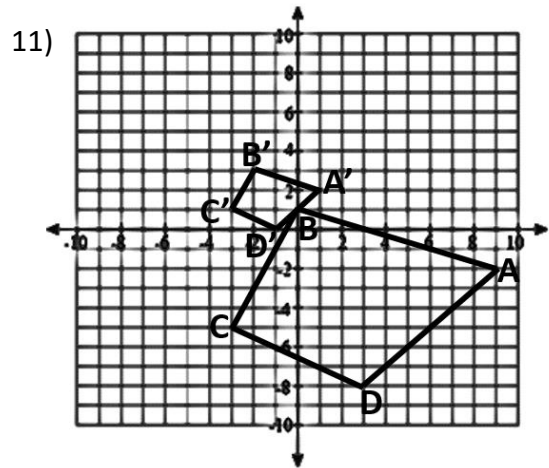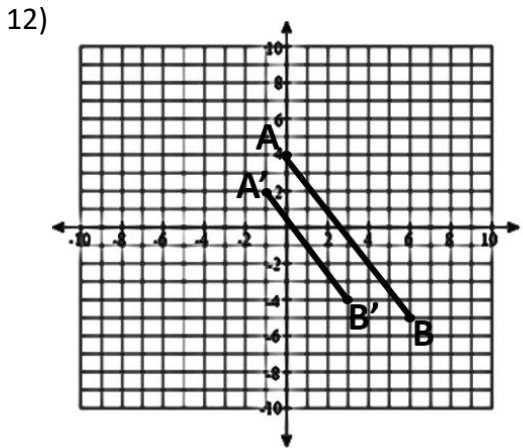9) Scale Factor: $\frac{1}{4}$
   Center: (4, 4)

Directions: Identify the scale factor and the center of dilation.

10)

Center of Dilation: _____   Scale Factor: _____
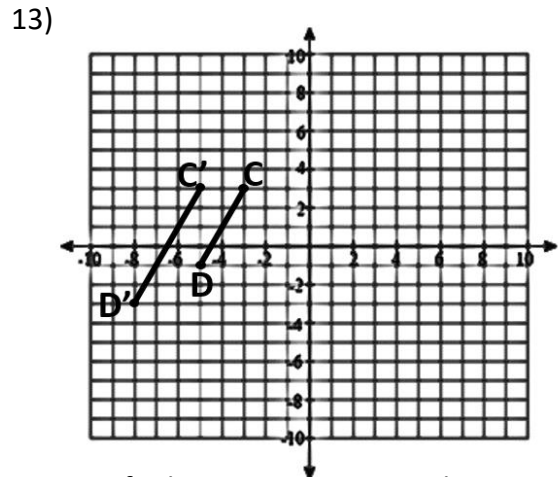
11)

Center of Dilation: _____   Scale Factor: _____
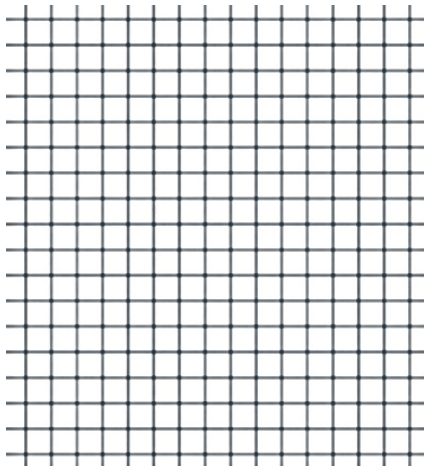
12)

Center of Dilation: _____   Scale Factor: _____

13)

Center of Dilation: _____   Scale Factor: _____

Directions: Solve each problem.

14) M(–8, 4) is dilated about (–4,5) to produce M'(–12, 3). What is the ordered pair that will represent J' using this same dilation if Point J is located at (–4, 2)?

15) Q(5, –1) is transformed by a horizontal stretch by a scale factor of 3 about a center of (1, 4). What is Q'?