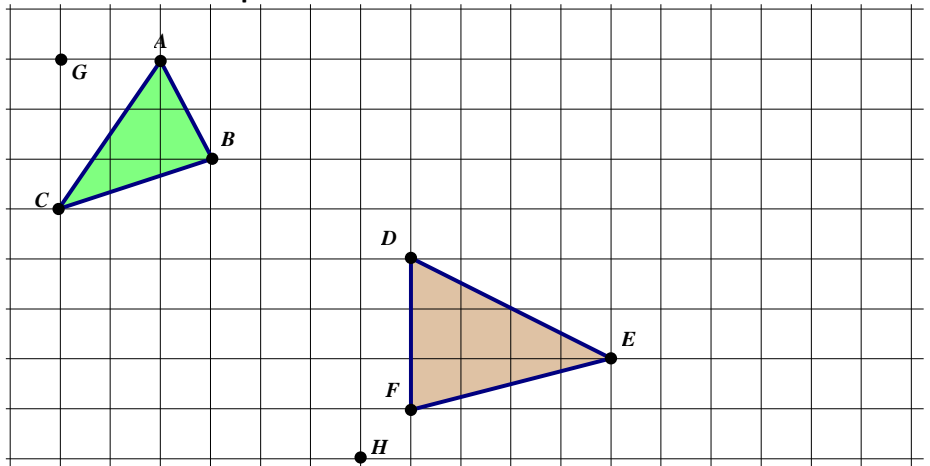


1. What happens when the center of dilation is outside the shape?

a) Dilate $\triangle ABC$ from G using a scale factor of 2
 $D_{G,2}(\triangle ABC)$

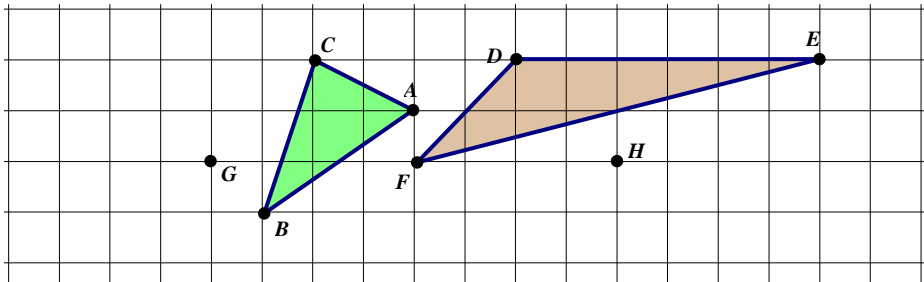


b) Dilate $\triangle DEF$ from H using a scale factor of 2
 $D_{H,2}(\triangle DEF)$

2. What happens when the scale factor is negative?

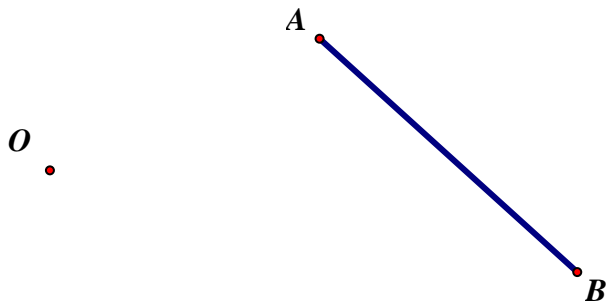
a) Dilate $\triangle ABC$ from G using a scale factor of -1
 $D_{G,-1}(\triangle ABC)$

b) Dilate $\triangle DEF$ from H using a scale factor of $-\frac{1}{2}$
 $D_{H,-\frac{1}{2}}(\triangle DEF)$



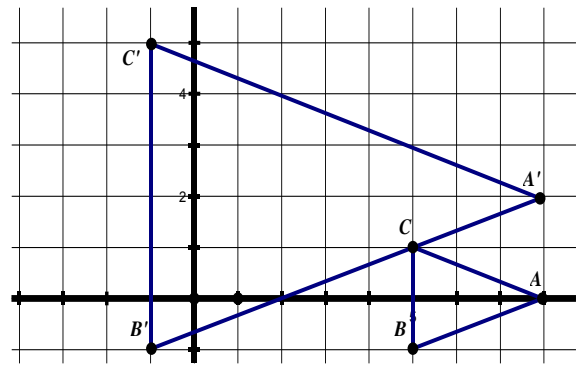
3. Use a compass and a straightedge to construct the following dilations.

$D_{O,2}(\overline{AB})$



4. Work backwards to find the center of dilation, and also determine the scale factor.

Center (_____, _____) Scale Factor = _____



5. Determine whether the following are stretch or dilation transformations.

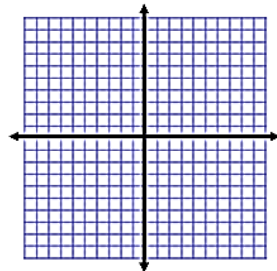
- a) b) $W(x, y) \rightarrow (\sqrt{5}x, \sqrt{5}y)$
- Stretch or Dilation

Stretch or Dilation

6. Complete the following.

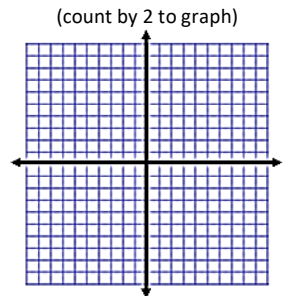
- a) Center of dilation is G. G (-3,1) A (-4,-5)
Scale Factor 2

Determine A'.



- b) Center of dilation is G. G (-2,-5) A (1,13)
Scale Factor $\frac{1}{3}$

Determine A'.



7. Dilate the following. (O is the origin).

- a) $D_{0, \frac{1}{2}}(5, -8) = (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ b) $D_{0, \frac{2}{3}}(8, 5) = (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ c) $D_{0, -\frac{4}{3}}(3, -5) = (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$

8. Determine the missing point.



- a) $D_{H,3}(\underline{\hspace{1cm}}) = (C)$ b) $D_{E,3}(C) = (\underline{\hspace{1cm}})$ c) $D_{G,-2}(H) = (\underline{\hspace{1cm}})$
- d) $D_{H,-9}(\underline{\hspace{1cm}}) = (E)$