

NAME: _____

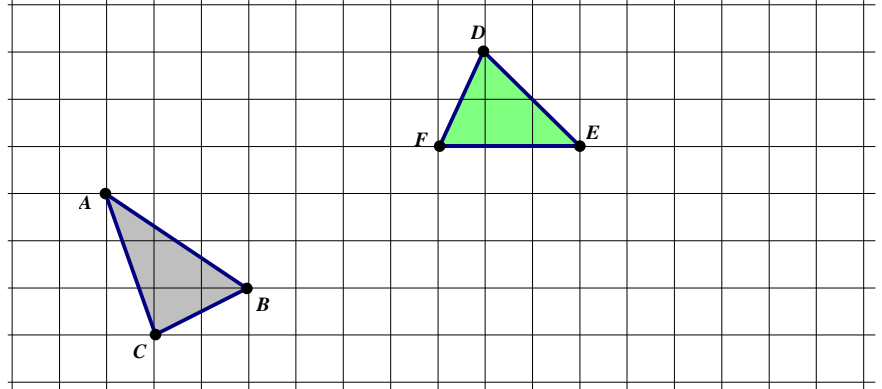
Date: _____

Dilations using a center that is NOT the Origin

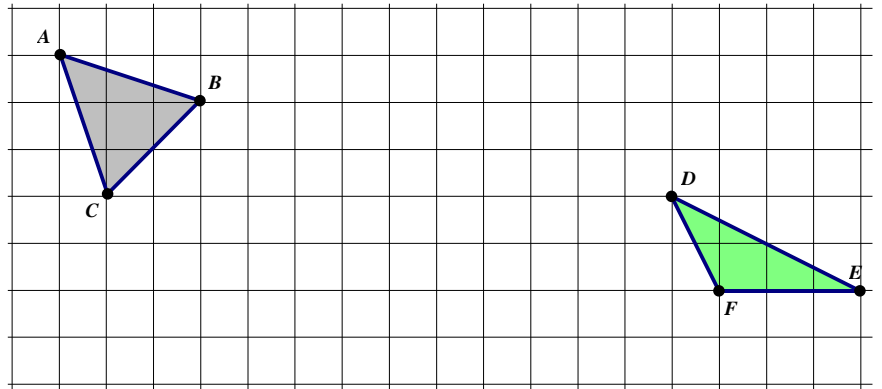
CC Geometry

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

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



b) Dilate $\triangle DEF$ from D using a scale factor of 3
 $D_{D,3}(\triangle DEF)$

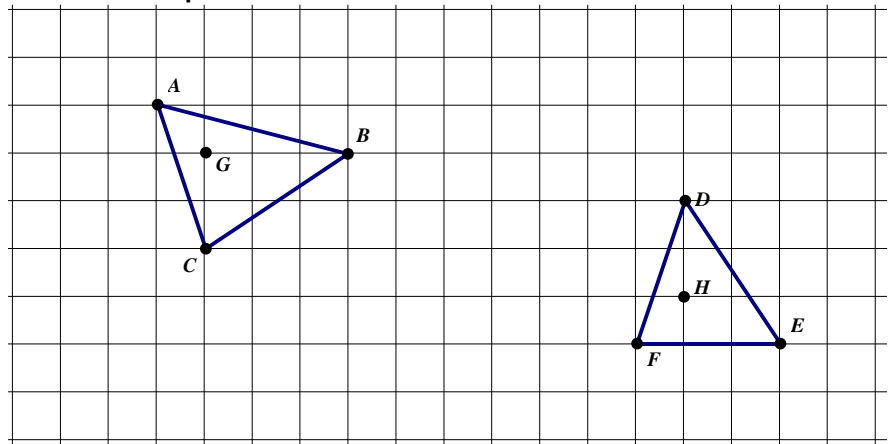


c) Dilate $\triangle ABC$ from A using a scale factor of 2
 $D_{A,2}(\triangle ABC)$

d) Dilate $\triangle DEF$ from E using a scale factor of 3
 $D_{E,3}(\triangle DEF)$

2. What happens when the center of dilation is inside the shape?

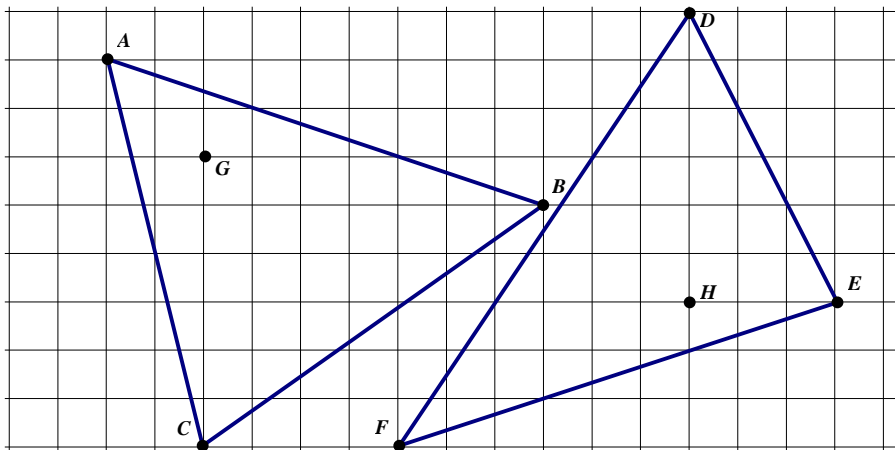
a) Dilate $\triangle ABC$ from G using a scale factor of 3
 $D_{G,3}(\triangle ABC)$



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

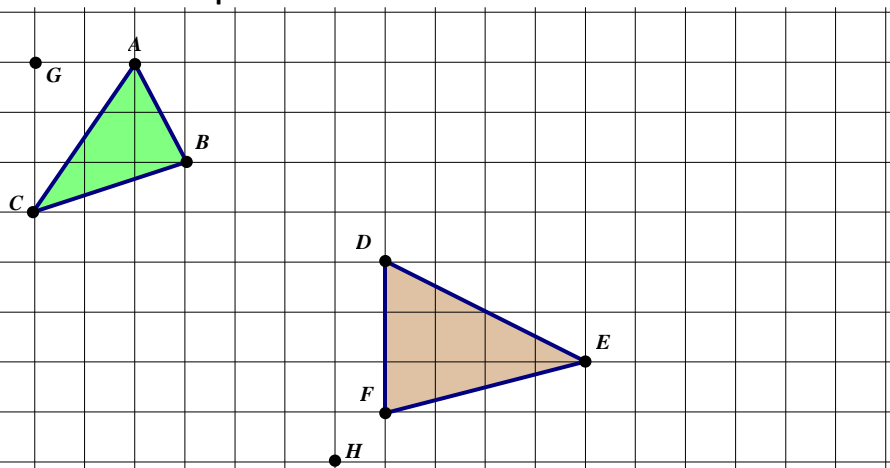
c) Dilate $\triangle ABC$ from G using a scale factor of $\frac{1}{2}$
 $D_{G,\frac{1}{2}}(\triangle ABC)$

d) Dilate $\triangle DEF$ from H using a scale factor of $\frac{1}{3}$
 $D_{H,\frac{1}{3}}(\triangle DEF)$



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

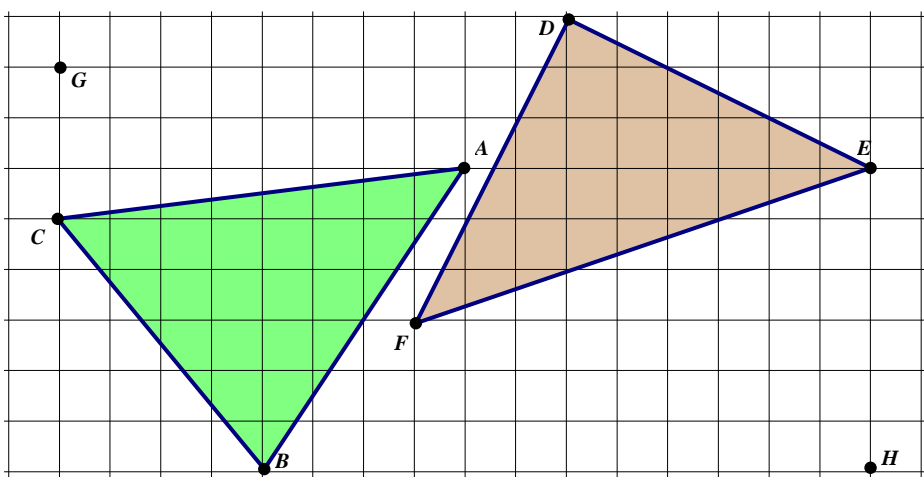
- a) Dilate $\triangle ABC$ from G using a scale factor of 2
 $D_{G,2}(\triangle ABC)$



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

- c) Dilate $\triangle ABC$ from G using a scale factor of $\frac{1}{2}$
 $D_{G,\frac{1}{2}}(\triangle ABC)$

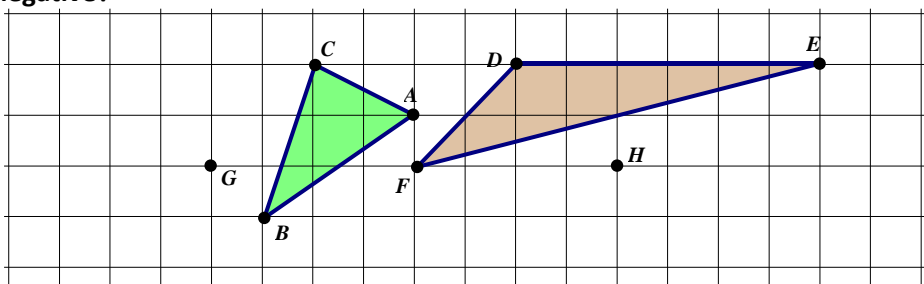
- d) Dilate $\triangle DEF$ from H using a scale factor of $\frac{1}{3}$
 $D_{H,\frac{1}{3}}(\triangle DEF)$



4. What happens when the scale factor is negative?

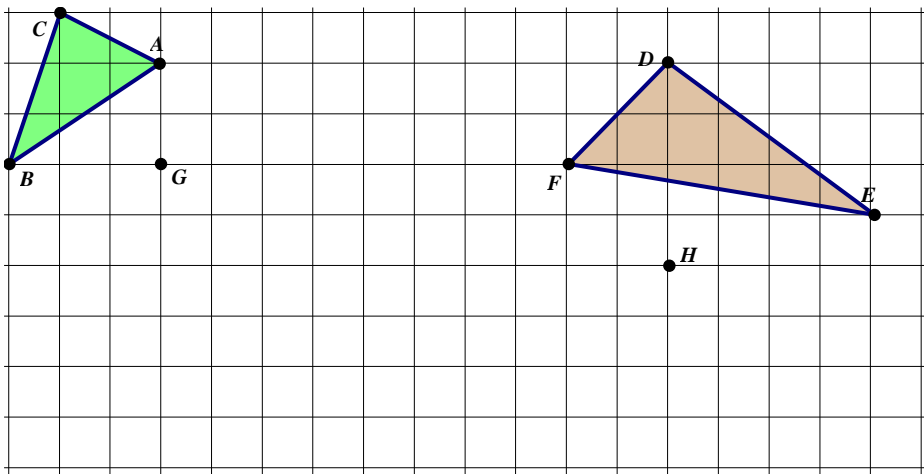
- a) Dilate $\triangle ABC$ from G using a scale factor of -1
 $D_{G,-1}(\triangle ABC)$

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



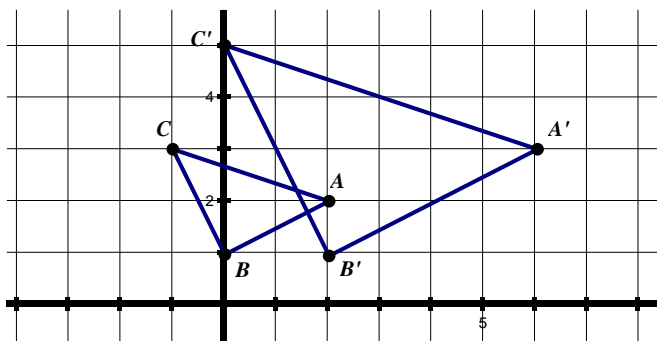
- c) Dilate $\triangle ABC$ from G using a scale factor of -2
 $D_{G,-2}(\triangle ABC)$

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

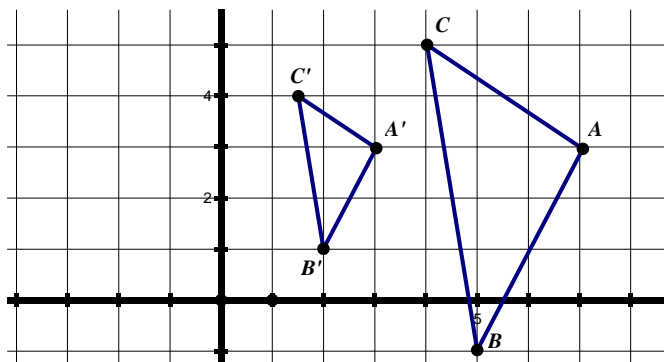


5. Work backwards to find the center of dilation, and also determine the scale factor.

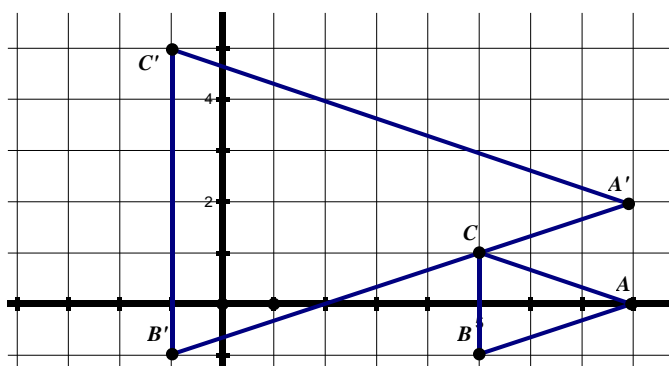
a) Center (_____ , _____) Scale Factor = _____



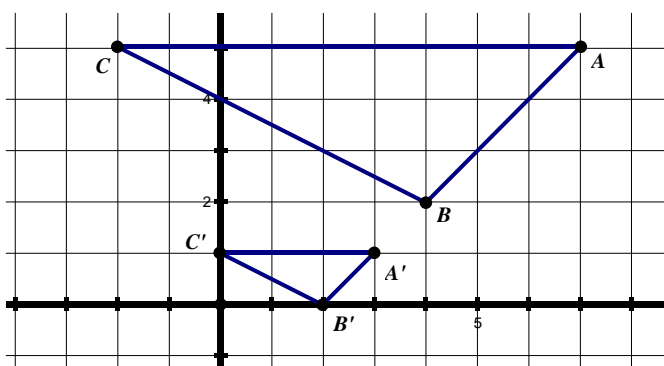
b) Center (_____ , _____) Scale Factor = _____



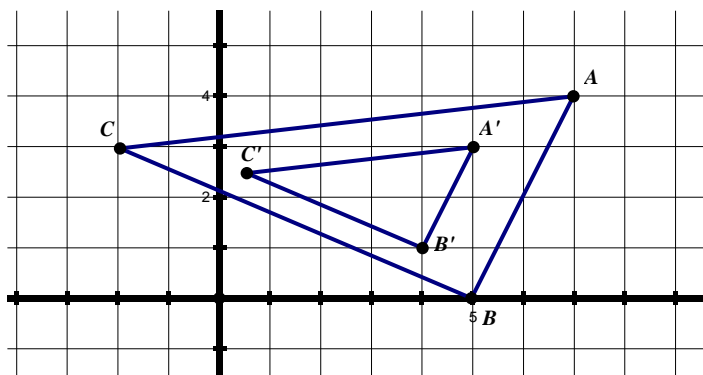
c) Center (_____ , _____) Scale Factor = _____



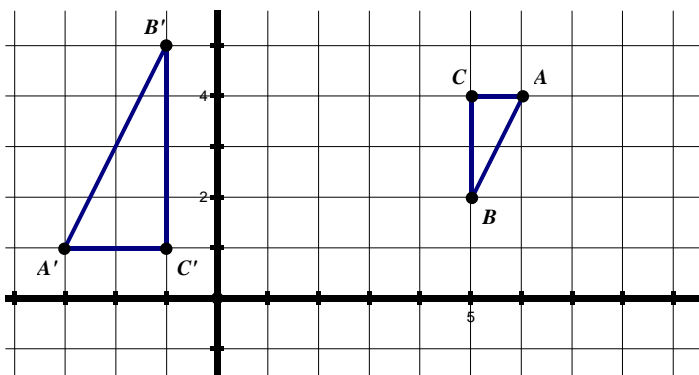
d) Center (_____ , _____) Scale Factor = _____



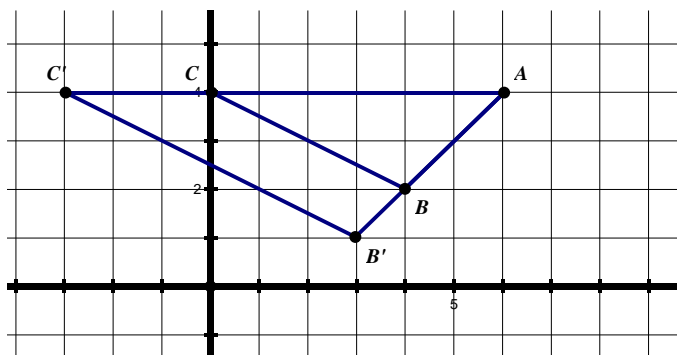
e) Center (_____ , _____) Scale Factor = _____



f) Center (_____ , _____) Scale Factor = _____



g) Center (_____ , _____) Scale Factor = _____



h) Center (_____ , _____) Scale Factor = _____

