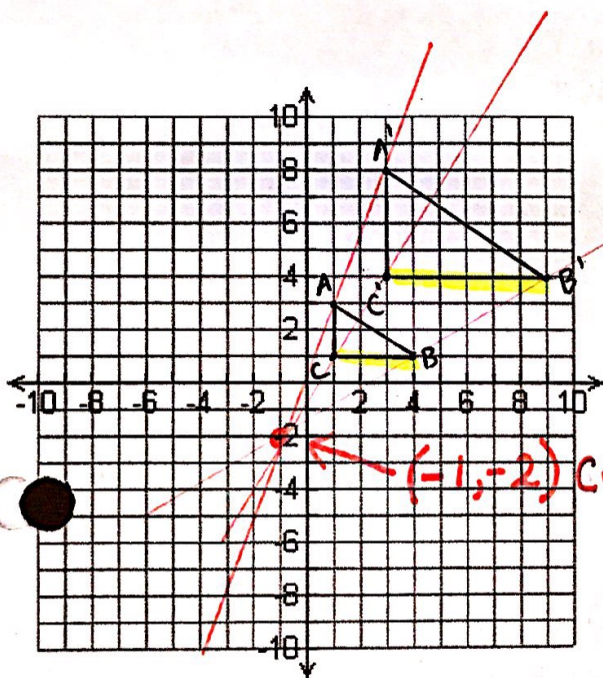


Dilation – A "non-rigid" transformation that results in similar figures. ① corresponding \angle 's are \cong
 ② corresponding sides are proportional

Scale Factor – $\frac{\text{image}}{\text{pre-image}}$
 ① Enlargement if $SF > 1$
 ② Reduction if $0 < SF < 1$

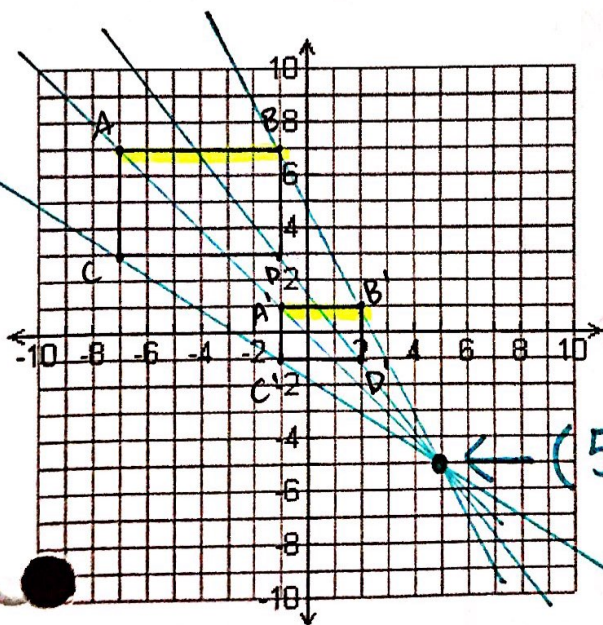
Center of Dilation – connect corresponding vertices with a straight line



Enlargement

$$SF = \frac{\text{image}}{\text{pre-image}} = \frac{6}{3} = 2$$

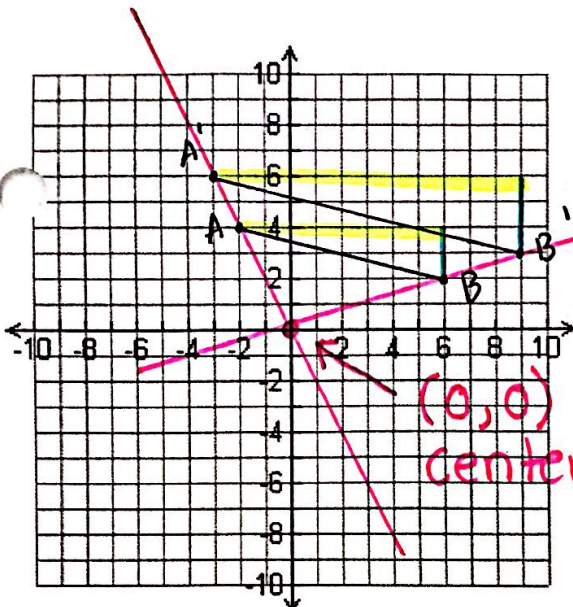
$(-1, -2)$ center of dilation



reduction

$$SF = \frac{\text{image}}{\text{pre-image}} = \frac{3}{6} = \frac{1}{2}$$

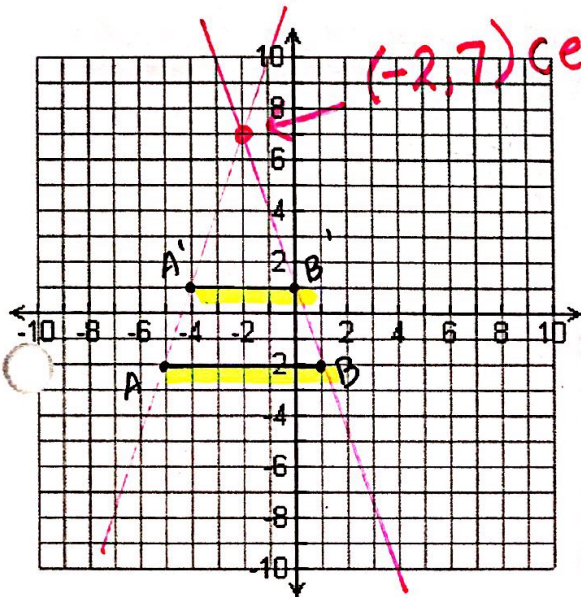
$(5, -5)$ center of dilation



enlargement

$$SF = \frac{\text{image}}{\text{pre-image}} = \frac{3}{2} \text{ or } 1.5$$

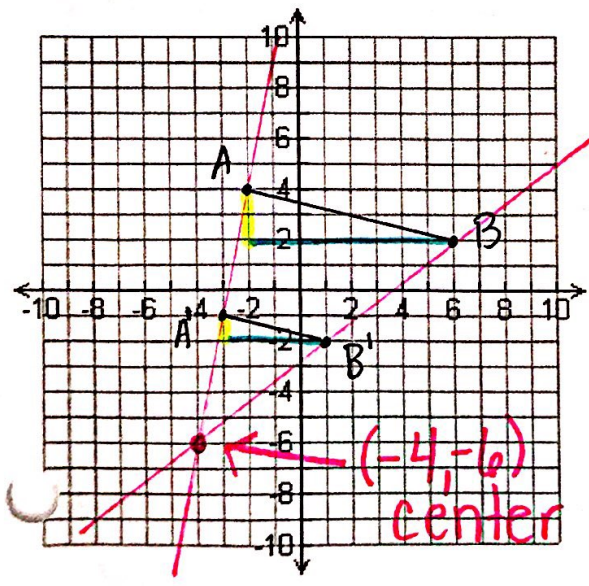
(0,0) center of dilation



(-2,7) center of dilation

reduction

$$SF = \frac{\text{image}}{\text{pre-image}} = \frac{4}{6} = \frac{2}{3} \text{ or } .\bar{6}$$



reduction

$$SF = \frac{\text{image}}{\text{pre-image}} = \frac{1}{2} \text{ or } .5$$

(-4,-6) center of dilation