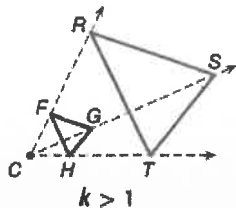


Dilation: a transformation that enlarges or reduces the original figure proportionally

Center of Dilation: the fixed point in which dilations are performed w/ respect to

Scale Factor of Dilation: The ratio of a length on the image to a corresponding length on the preimage

Enlargement:



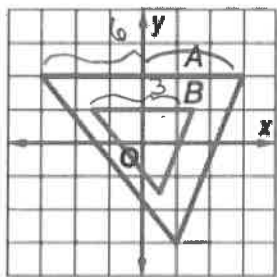
a dilation w/ a scale

factor greater than 1

* produces larger image *

- Determine whether the dilation from A to B is an enlargement or a reduction. Then find the scale factor of the dilation.

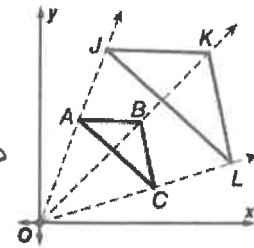
a.



B is smaller than A, so the dilation is

a reduction

$$\text{scale factor} = \frac{3}{6} = \frac{1}{2}$$



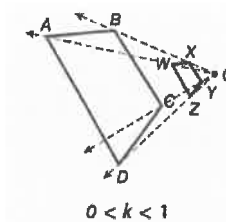
$\triangle JKL$ is a dilation of $\triangle ABC$.

Center of dilation: $(0, 0)$

* Scale factor: $\frac{JK}{AB}$ *

$\frac{\text{dilation}}{\text{original}}$

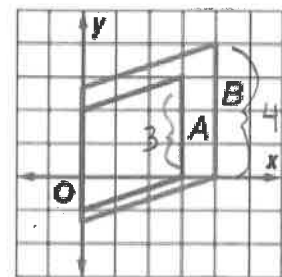
Reduction:



a dilation w/ a scale factor between 0 and 1

* produces smaller image *

b.

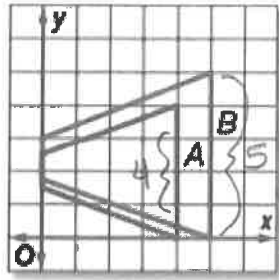


enlargement

$$\text{scale factor} = \frac{4}{3}$$

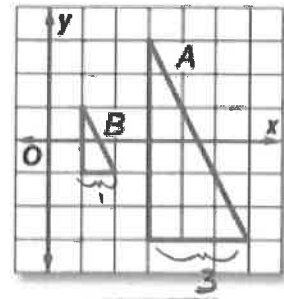
7.6 Dilations
Geometry CP

c.



enlargement
 $\frac{5}{4}$

d.



reduction
 $\frac{1}{3}$