Dilation

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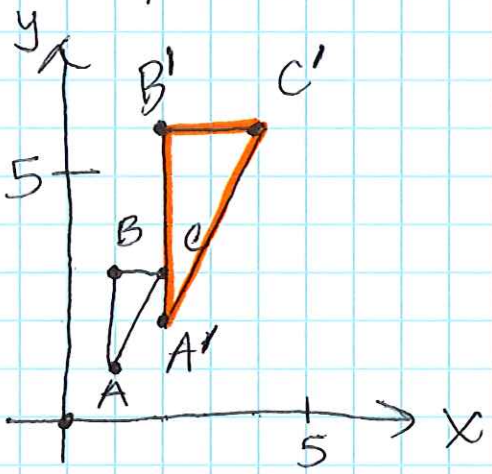
Dilation is a transformation that maintains the shape of a figure but multiples its dimension by a factor.

The shape is <u>Stretch</u> or <u>shrunk</u> proportionally from a point.

example

Dilate $\triangle ABC$ by a factor of 2 with respect to the origin



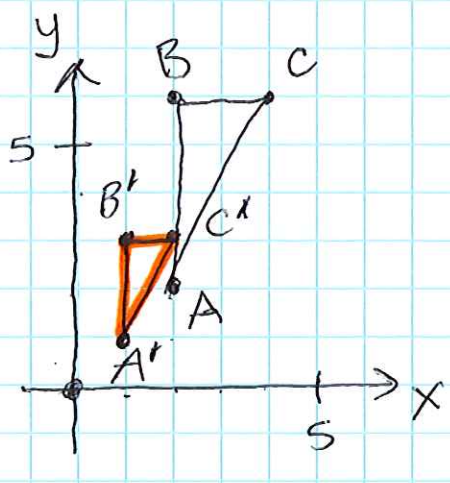
$A(1,1) \xrightarrow{\times 2} A'(2,2)$

$B(1,3) \rightarrow B'(2,6)$

$C(2,3) \rightarrow C'(4,6)$

example2

Dilate $\triangle ABC$ by a factor of $\frac{1}{2}$ with respect to the origin



$A(2,2) \xrightarrow{\times \frac{1}{2}} A'(1,1)$

$B(2,6) \rightarrow B'(1,3)$

$C(4,6) \rightarrow C'(2,3)$

Summary