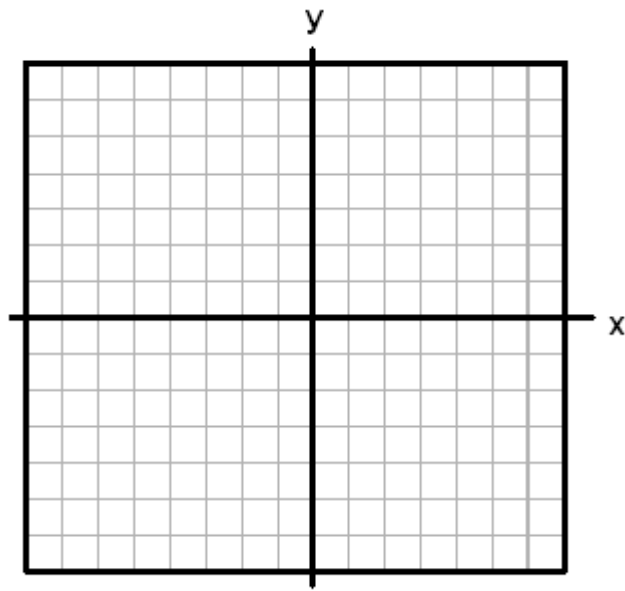
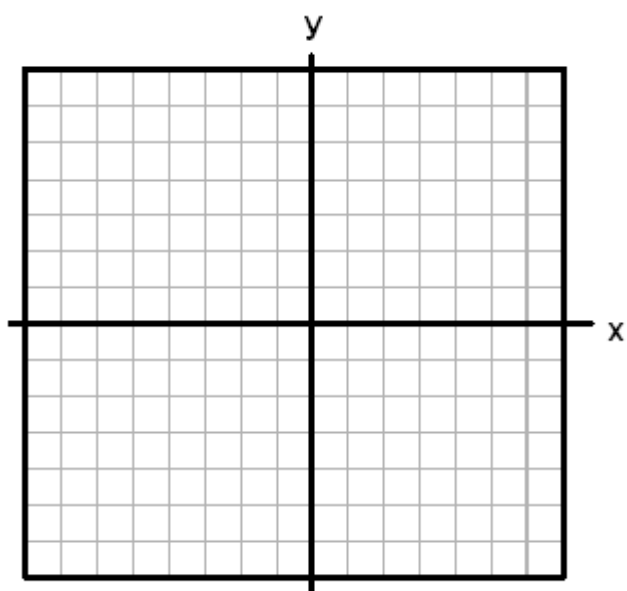
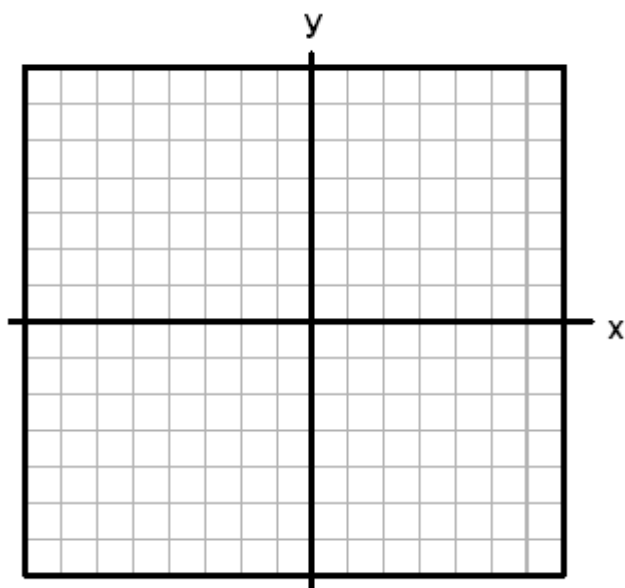
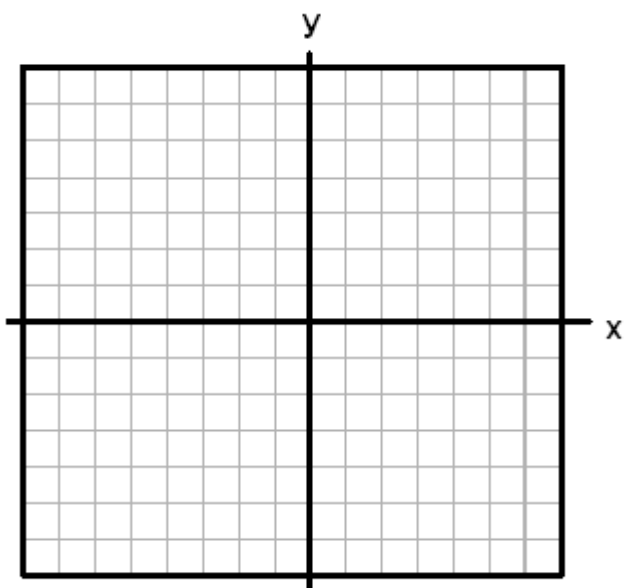
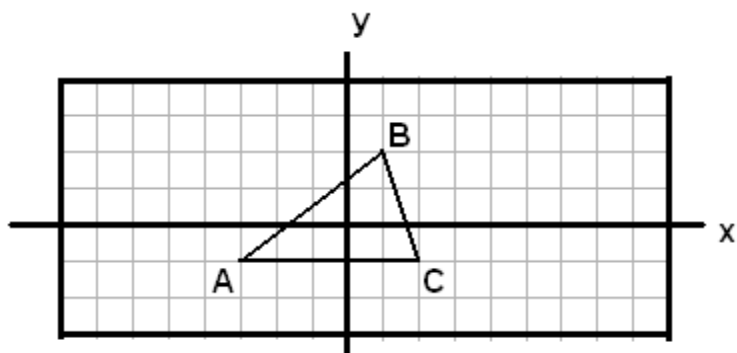


CP Geometry
Dilations

Name: _____



Dilation

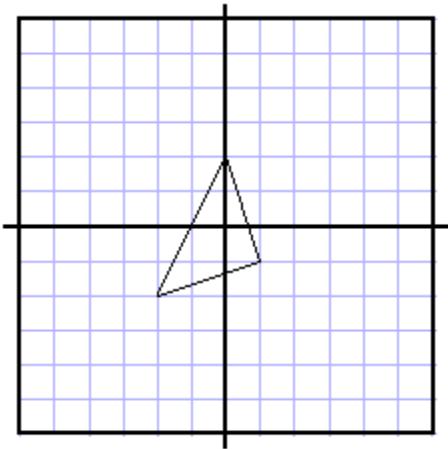
Transformation that produces an image that is the "same shape" but a different size than the original.

Scale factor > 1 : Enlargement

Scale factor < 1 : Reduction

** We will always use the origin as the center of dilation if we are in a coordinate plane.

[EX 1] Given the figure below with A(-2,-2), B(1,-1), and C(0,2), draw the resulting image A'B'C' centered at the origin with scale factor 2. Then use the distance formula and your calculator to compute the following:



$$\frac{A'B'}{AB} =$$

$$\frac{A'C'}{AC} =$$

$$\frac{B'C'}{BC} =$$

Use your protractor to find these...

$m \angle A =$

$m \angle B =$

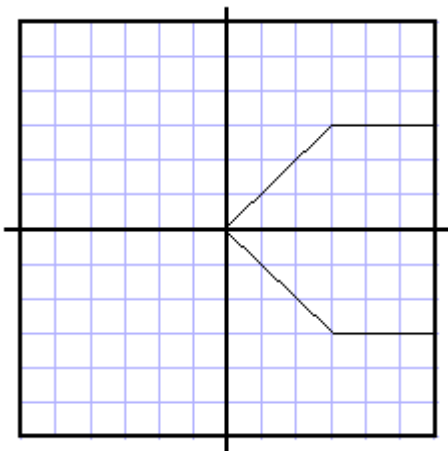
$m \angle C =$

$m \angle A' =$

$m \angle B' =$

$m \angle C' =$

[EX 2] Given the figure below with A(0,0), B(3,3), C(6,3), D(6,-3), E(3,-3), find the image after a dilation of 1/3 is performed.



$$\frac{A'B'}{AB} =$$

$$\frac{D'E'}{DE} =$$

$$\frac{B'C'}{BC} =$$

$$\frac{A'E'}{AE} =$$

$$\frac{C'D'}{CD} =$$

$m \angle A =$

$m \angle B =$

$m \angle C =$

$m \angle D =$

$m \angle E =$

$m \angle A' =$

$m \angle B' =$

$m \angle C' =$

$m \angle D' =$

$m \angle E' =$