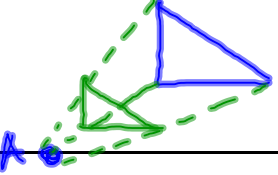
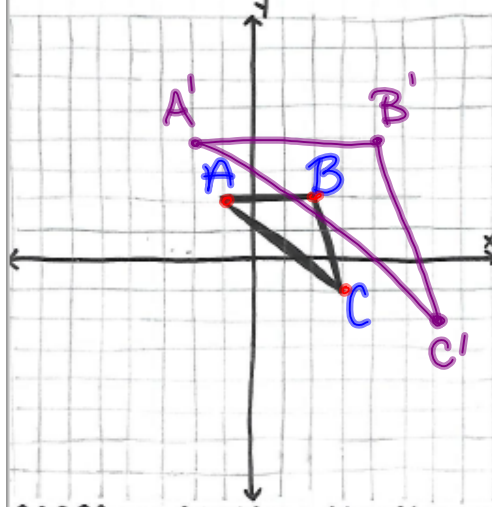


Dilation	an enlargement OR reduction of a figure based on a given scale factor and about a given center	
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Oct 19-7:46 AM

dilations

centered @ ORIGIN ←



Ex: Dilate the triangle by a factor of 2 centered at the origin

① Find the pre-image points.
 $A(-1, 2)$ $B(2, 2)$ $C(3, -1)$

② Multiply each point by the scale factor.
 $A'(-2, 4)$ $B'(4, 4)$ $C'(6, -2)$

③ Plot the image points.

Oct 19-7:45 AM

→ CENTERED ON A POINT

Ex: Dilate the triangle by a scale factor of $\frac{1}{2}$, centered on $(-6, -3)$.

- Find the vertical and horizontal distance from each pre-image point to the center.
- Multiply each distance by the Scale factor.
 $4(\frac{1}{2}) = 2$ $12(\frac{1}{2}) = 6$
 $10(\frac{1}{2}) = 5$
- Plot the new image points.

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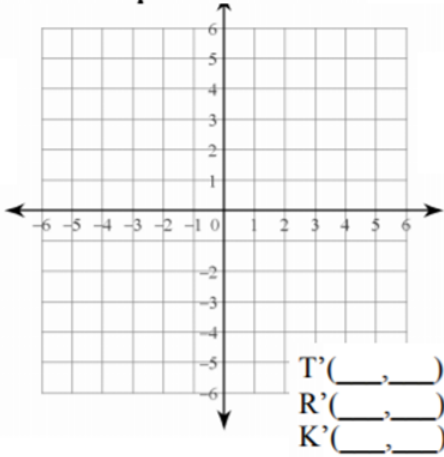
Do the following problem with the class, then write down the process on the right:

Dilate $\triangle ADI$, $A(-1, -1)$, $D(0, 2)$, $I(3, 1)$ by a scale factor of 2 from the origin.

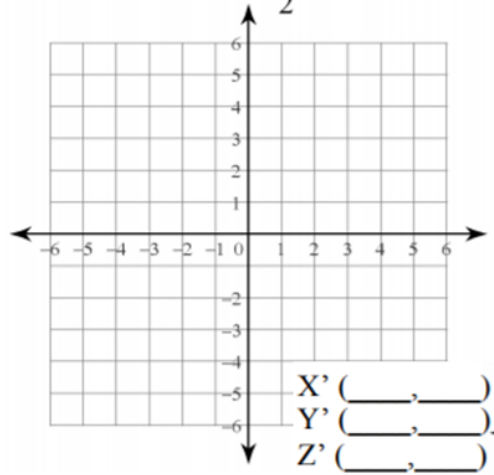
1) Dilate $\triangle QRS$ if $Q(-1, 0)$, $R(-1, 2)$, $S(-2, 1)$ by a scale factor of 2 from the origin.

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2) Dilate ∞ TRK if T(-1,-2), R(1,0), K(0,1) by a scale factor of 3 from the origin.

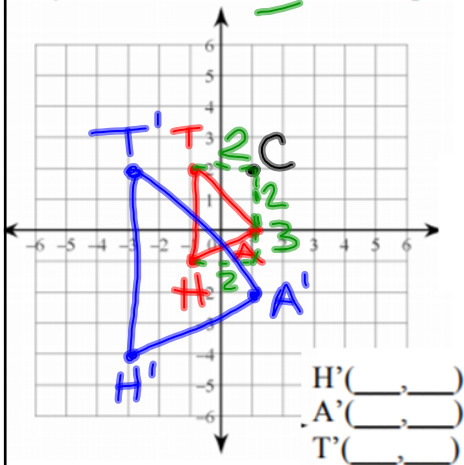


3) Dilate ∞ XYZ if X(-4,0), Y(-4,4), Z(-2,-2) by a scale factor of $\frac{1}{2}$ from the origin.

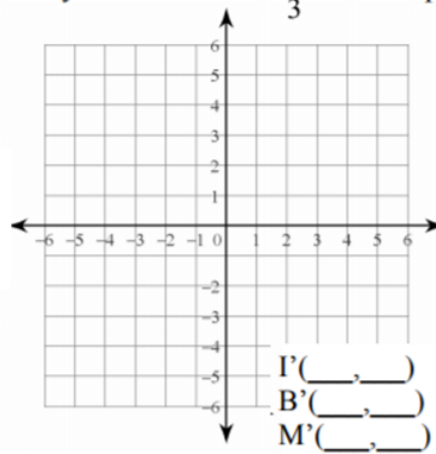


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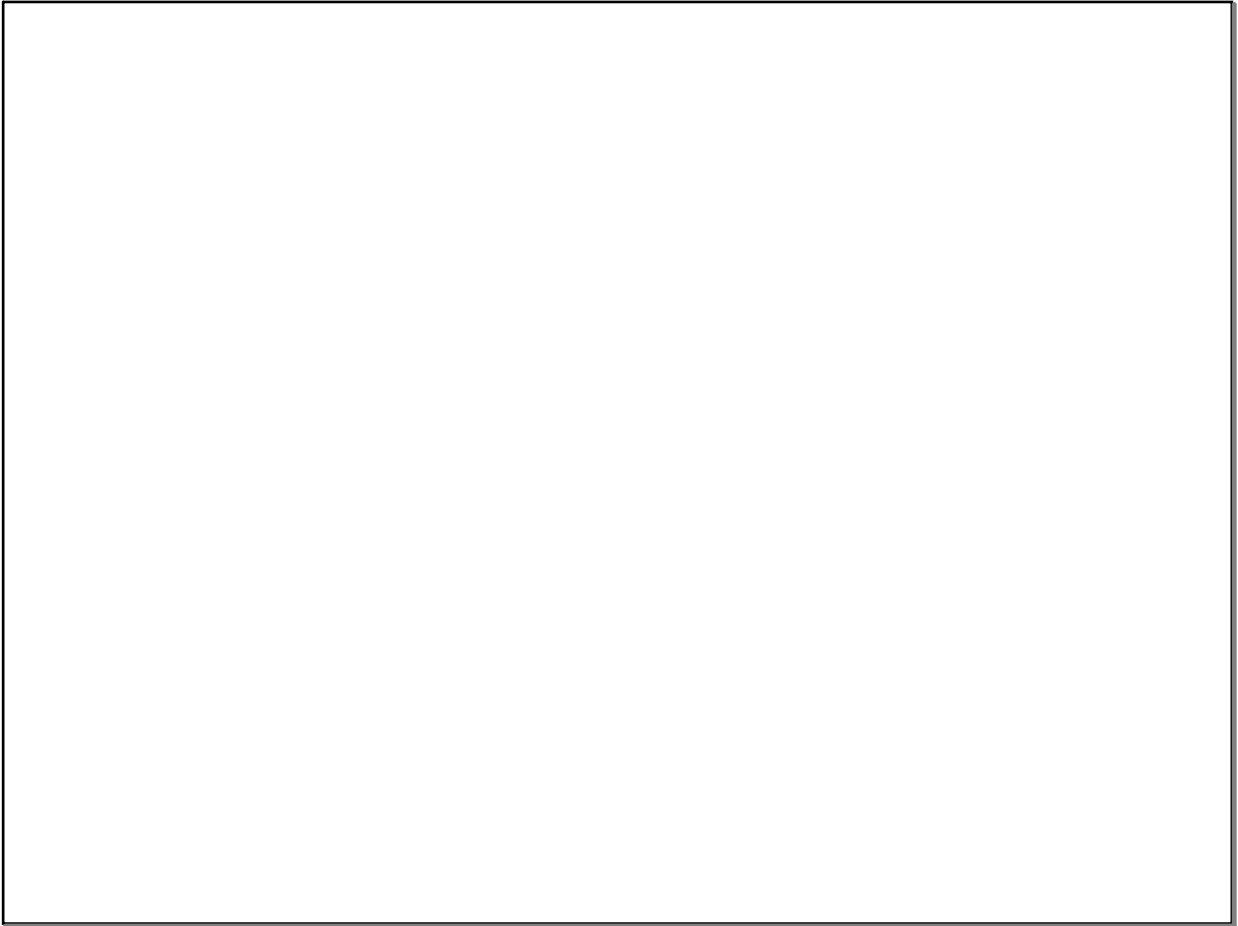
4) Dilate ∞ HAT if H(-1,-1), A(1,0), T(-1,2) by a scale factor of 2 from the point (1,2)



6) Dilate ∞ IBM if I(1,-2), B(1,4), M(4,1) by a scale factor of $\frac{1}{3}$ from the point (-2,1)



Oct 19-8:07 AM



Oct 23-4:00 PM