Geometry

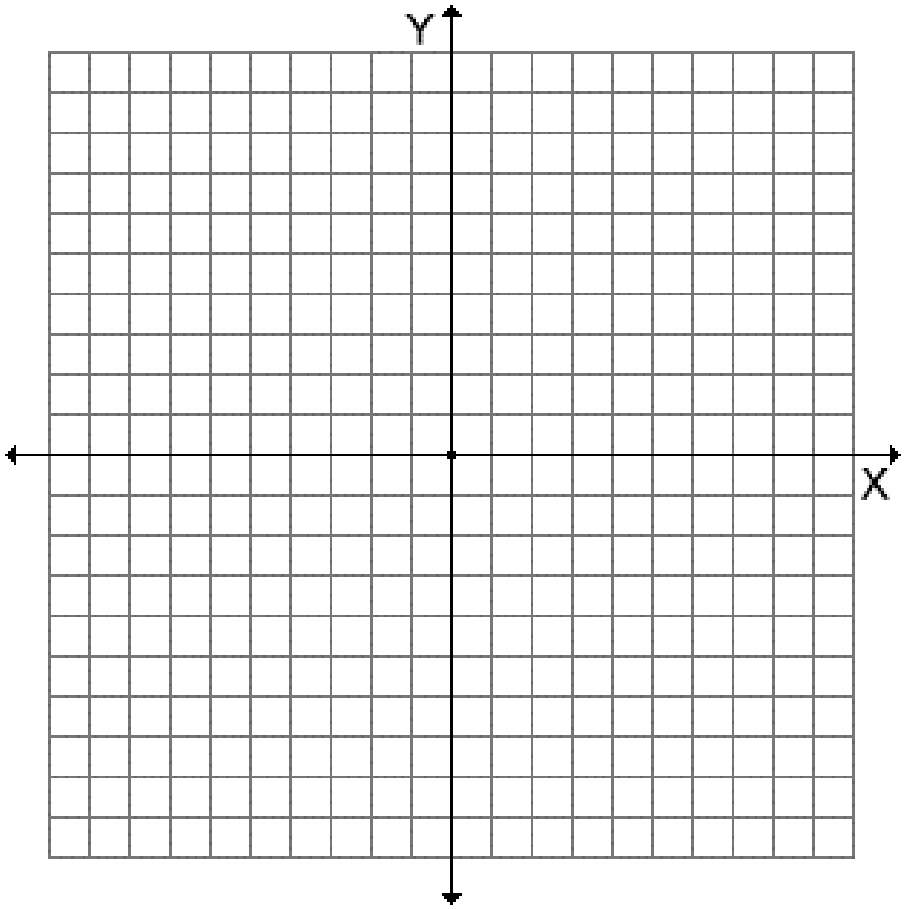
Name _____

Chapter 9 Review
Transformations

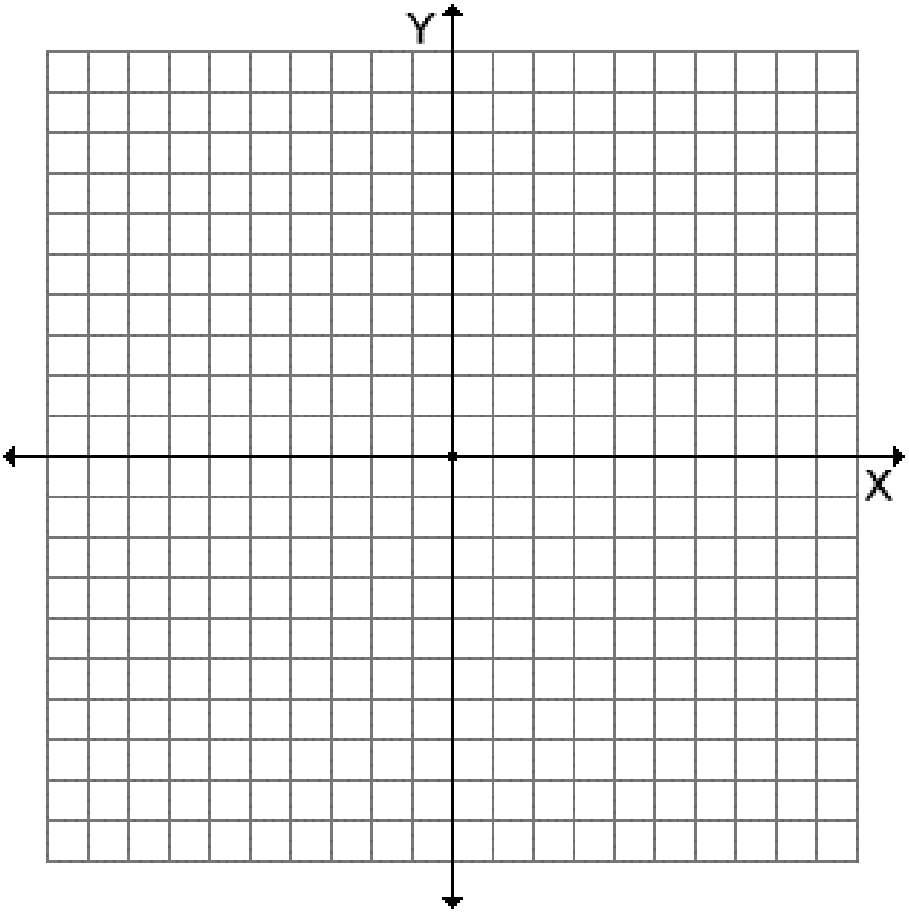
Date _____ Hour _____

Part I: Reflections

1) Reflect the triangle with vertices E(0, 1), F(7, 4), and G(6, –5) across y-axis.

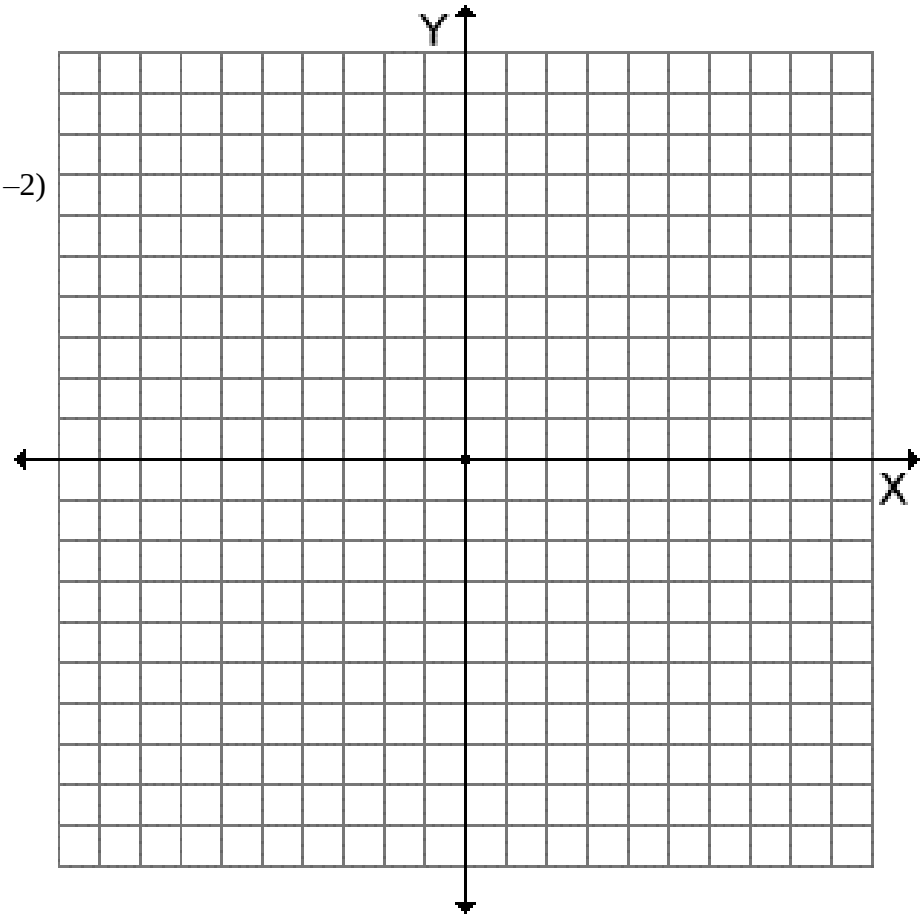


2) Reflect the triangle with vertices P(–7, 2), Q(7, 2), R(3, –5) across the origin.



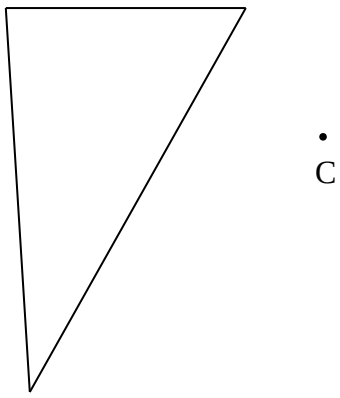
Part II: Translate

3) Draw the parallelogram
B(1,1), E(–8, –2), S(–4, –5), and T(5, –2)
and its image under the translation
(x, y) → (x + 3, y – 5)



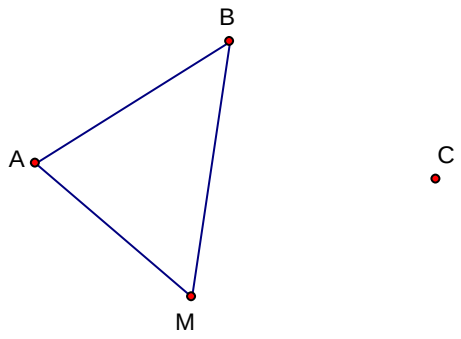
Part III: Rotation

4) Rotate 120^0 counter-clockwise around center C.



Part IV: Dilation

5) Dilate this figure with center C and scale factor = **–2**



Find the measure of the dilation image or the preimage using the given scale factor.

6) MN = 8 , r = 2

MN′ = _____

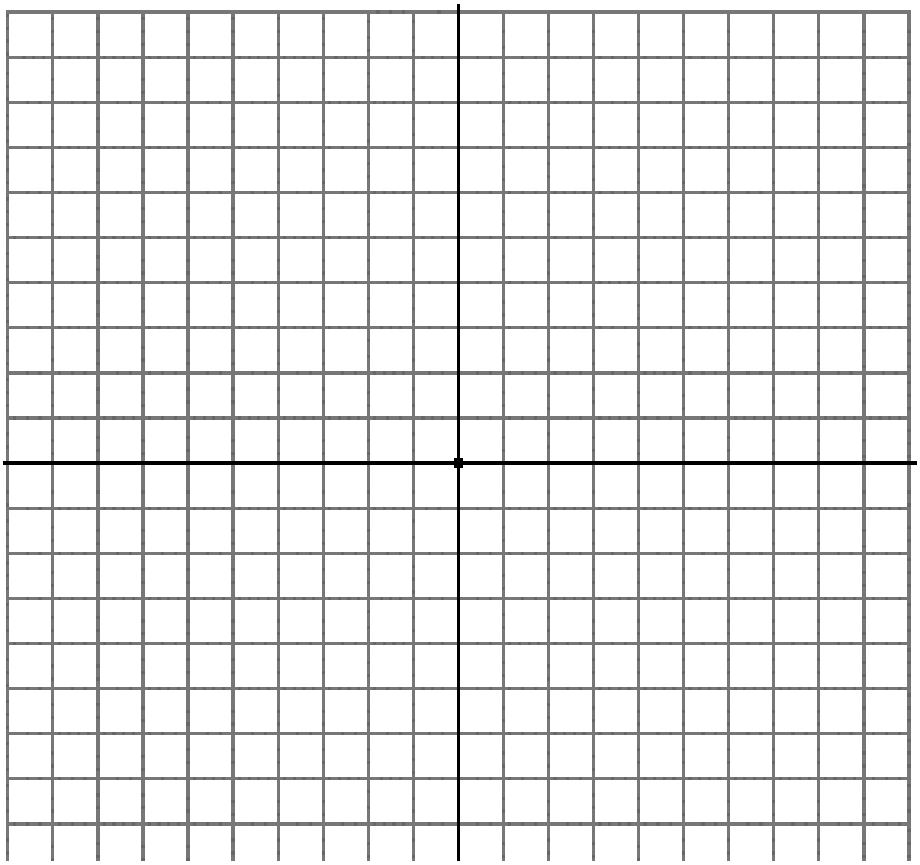
7) AB′ = 21 , r = –3

AB = _____

Part V: Vectors

The coordinates of $\overrightarrow{AB}$ are A(5, –2) and B(–4, 3).

8) Write $\overrightarrow{AB}$ in component form then place on the graph in standard position. _____



9) Find the magnitude of $\overrightarrow{AB}$.

10) Find the direction of $\overrightarrow{AB}$.