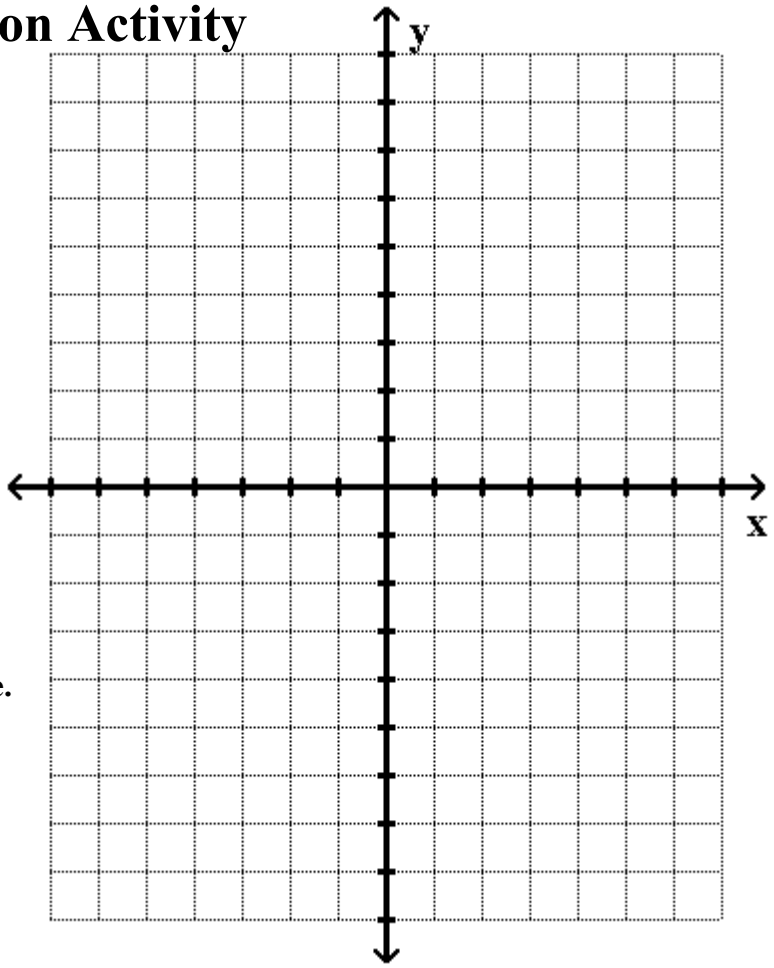
Rotation Activity



NOTE: Each tick mark is equivalent to one unit.

1) **Draw ΔABC on both of the grids provided. A(2, 7), B(2, 1), C(6, 1)**

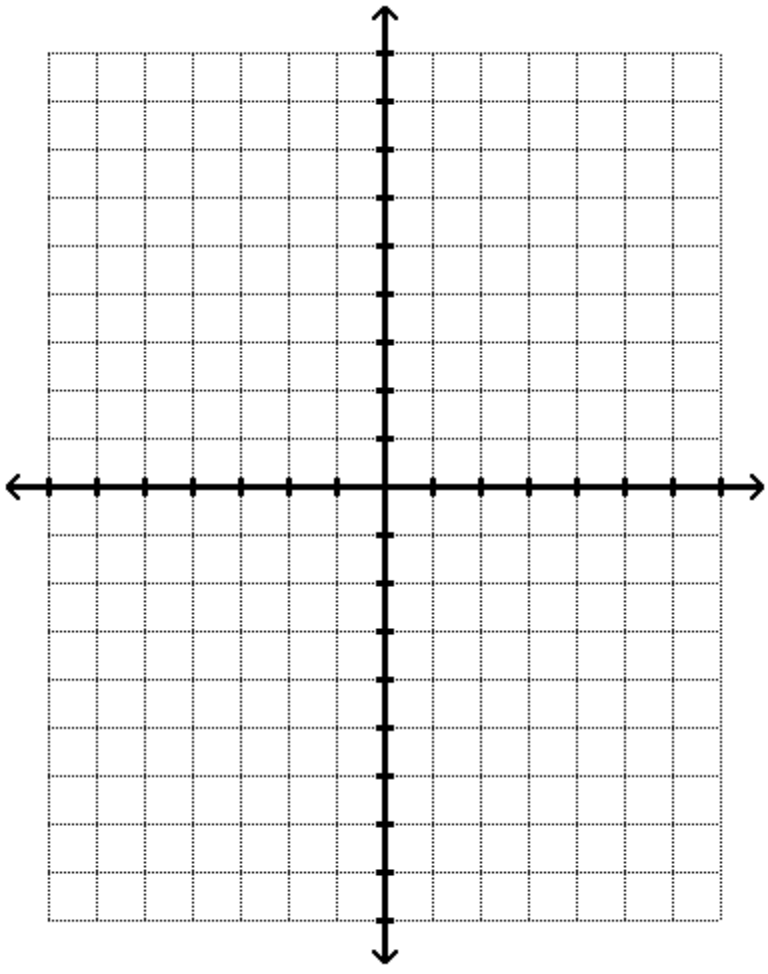
2) **Cut out the grid that does NOT have the labeled axiss'.**

3) **Poke a tiny hole through the origin of the coordinate graph that you just cut out.**

4) **Put this coordinate graph directly on top of the one that has the x–axis and y–axis labeled. This will be referred to as the original spot. Use your pencil to help rotate.**

5) **Rotate the top graph 90º counter clockwise. Your new triangle, Δ A'B'C', should be in Quadrant II. Identify the coordinates of: A'(,), B'(,), C'(,)**

6) **Draw Δ A'B'C' on the grid with the one that has the x–axis and y–axis labeled.**



7) **Using ΔABC from its original spot, rotate the top 180º counter clockwise. Your new triangle, Δ A''B''C'', should be in Quadrant III. Identify the coordinates of : A''(,), B''(,), C''(,)**

8) **Draw Δ A''B''C'' on the grid with the one that has the x–axis and y–axis labeled.**

9) **Using ΔABC from its original position, rotate the top 270º counter clockwise. Your new triangle, Δ A'''B'''C''', should be in Quadrant IV. Identify the coordinates of: A'''(,), B'''(,), C'''(,)**

10) **Draw Δ A'''B'''C''' on the grid with the one that has the x–axis and y–axis labeled.**

NOTE: At the end of #10, you should have 4 triangles drawn on the grid with the one that has the x–axis and y–axis labeled. And they should all be labeled differently.

11. Record the results from the activity into the table below.

	Pre–Image	Image	Rule
90° rotation CC	**A (,)** **B (,)** **C (,)**	**A' (,)** **B' (,)** **C' (,)**	**(x, y) → (,)**
180° rotation	**A (,)** **B (,)** **C (,)**	**A'' (,)** **B'' (,)** **C'' (,)**	**(x, y) → (,)**
270° rotation CC	**A (,)** **B (,)** **C (,)**	**A''' (,)** **B''' (,)** **C''' (,)**	**(x, y) → (,)**

Class Rules:

<u>90° rotation</u> CC

Words:

Using Math Symbols:

<u>180° rotation</u>

Words:

Using Math Symbols:

<u>270° rotation</u> CC

Words:

Using Math Symbols: