Geometry   Name _____

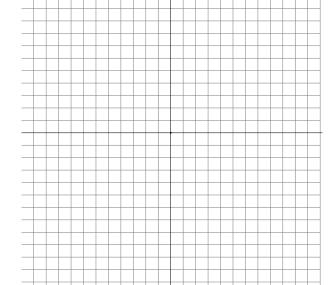4.7 Triangles and Coordinate Proof   Date _____ Hour _____

1) Plot points A, B, and C on the graph.
   You get to choose your coordinates.

2) Connect to form $\triangle ABC$.

3) Find the midpoint of $\overline{AB}$ and call it X.

4) Find the midpoint of $\overline{AC}$ and call it Y.

5) If you need to modify the points you selected so it's easier
   to do the midpoints then this is the time.

6) Connect X and Y to form $\overline{XY}$.

7) Use the slope formula to find the slope of $\overline{BC}$.   8) Use the slope formula to find the slope of $\overline{XY}$.

9) Use the distance formula to find length BC.   10) Use the distance formula to find length XY.

11) Compare your answers with others at your table. What conclusions can you draw?

12) Search the Internet or your textbook to see what the segment $\overline{XY}$ is called.