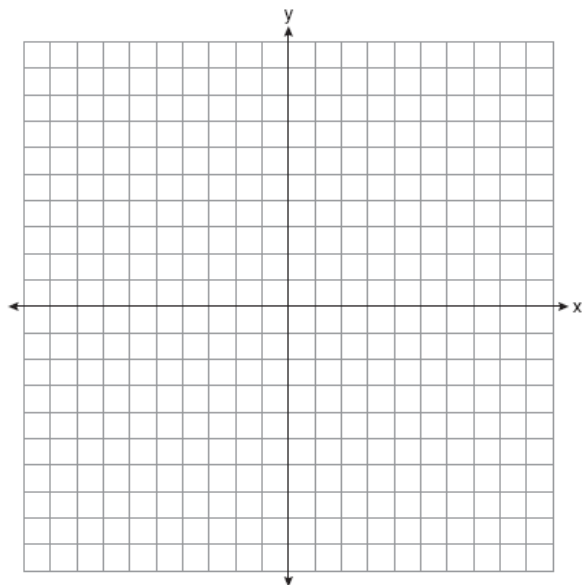


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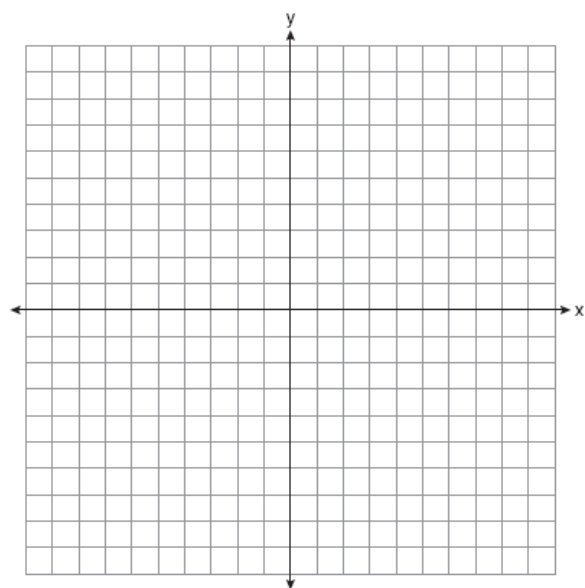
Date: _____

Proving a Rectangle – HW

1. Quadrilateral *MIKE* has vertices $M(2,1)$, $I(4,4)$, $K(10,0)$, and $E(8,-3)$. Use coordinate geometry to prove that quadrilateral *MIKE* is a rectangle.



2. Quadrilateral *JAME* has vertices $J(2,-2)$, $A(8,-1)$, $M(9,3)$ and $E(3,2)$. Prove that *JAME* is a parallelogram, but *not* a rectangle.



3. In the coordinate plane, the vertices of $\triangle ABC$ are $A(-2, 5)$, $B(4, 9)$, and $C(6, 6)$. State the coordinates of point D such that quadrilateral $ABCD$ is a rectangle. Prove that your quadrilateral $ABCD$ is a rectangle.

