Geometry 21 **6.9 More Practice with Coordinate Proofs** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For each proof, please include a diagram labeled on a coordinate plane.

STEPS:

1. draw and label the graph
2. state all formulas you plan to use
3. show all work
4. have a concluding sentence

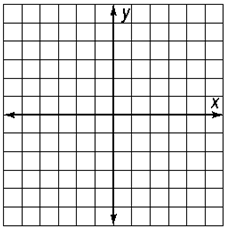
Formulas you will most often use in coordinate proofs are:

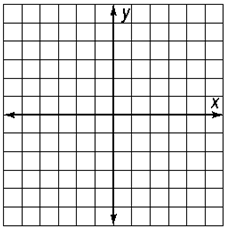
MIDPOINT FORMULA -

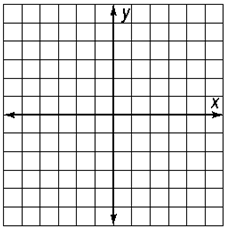
DISTANCE FORMULA -

SLOPE FORMULA -

1. Prove: The diagonals of a parallelogram bisect each other. (Hint: Show that the midpoint of each diagonal is at the same point!)



1. Prove: The diagonals of a rhombus are perpendicular.
2. Prove: The segments joining the midpoints of the sides of a rectangle form a rhombus.



1. Prove: The segments joining the midpoints of the sides of an isosceles triangle form another isosceles triangle.

