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

For each proof, please include a diagram labeled on a coordinate plane. You may work with a partner.

1. Prove: The diagonals of a rectangle are congruent.
2. 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 midpoint of the hypotenuse of a right triangle is equidistant from the 3 vertices.
2. Prove: The diagonals of an isosceles trapezoid are congruent.
3. \*\*Prove: The 3 segments joining the midpoints of the sides of an isosceles triangle forms another isosceles triangle.