***Objective:**

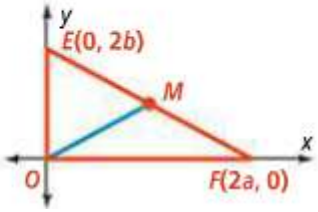
Problem 1 Writing a Coordinate Proof

Use coordinate geometry to prove that the midpoint of the hypotenuse of a right triangle is equidistant from the three vertices.

Given: $\triangle OEF$ is a right triangle.

M is the midpoint of $\overline{EF}$.

Prove: $EM = FM = OM$

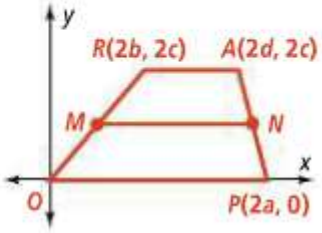


Problem 2 Writing a Coordinate Proof

Write a coordinate proof of the Trapezoid Midsegment Theorem.

Given: $\overline{MN}$ is the midsegment of trapezoid $ORAP$.

Prove: $\overline{MN} \parallel \overline{OP}, \overline{MN} \parallel \overline{RA}, MN = \frac{1}{2}(OP + RA)$



Inclass: p. 414 #4
Homework: p. 414 #5
Interactmath: #4, 5