

LESSON
4-7

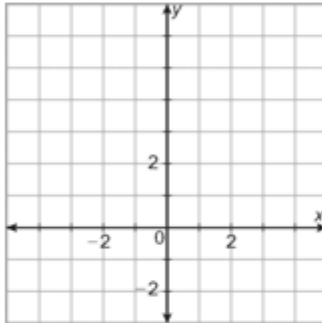
Practice B

Introduction to Coordinate Proof

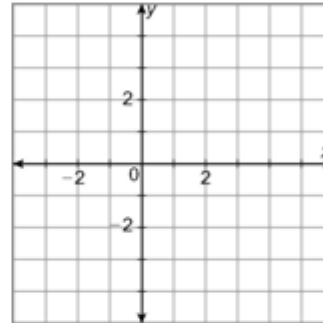
Position an isosceles triangle with sides of 8 units, 5 units, and 5 units in the coordinate plane. Label the coordinates of each vertex.

(Hint: Use the Pythagorean Theorem.)

1. Center the long side on the x-axis at the origin.



2. Place the long side on the y-axis centered at the origin.



Write a coordinate proof.

3. **Given:** Rectangle $ABCD$ has vertices $A(0, 4)$, $B(6, 4)$, $C(6, 0)$, and $D(0, 0)$. E is the midpoint of \overline{DC} . F is the midpoint of \overline{DA} .

Prove: The area of rectangle $DEGF$ is one-fourth the area of rectangle $ABCD$.

