Proving Points are the Vertices of a Right Triangle

Method 1:

Calculate the length of each side using the distance formula.

Use Pythagorean Theorem to determine if the lengths of the sides form a right triangle.

Method 2:

Plot the points.

Calculate the slope of each side which creates the potential right angle. Decide whether a right angle exists.

Determine if the triangle is a right triangle.

Practice Problems

1. Given the points (13, -1), (-9, 3), and (-3, -9) prove the points create a right triangle.

2. Given the points (6, 1), (0, 4), and (-1, -7) prove the points create a right triangle.

3. Given the points (1, 2), (5, 4), and (-3, 0) prove the points create a right triangle.

4. Given the points (-1, 7), (10 -4), and (12, -2) prove the points create a right triangle.

5. Given the points (5, 4), (11, 6), and (15, -6) prove the points create a right triangle.