**9.14 HW Triangle Coordinate Proofs Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Directions: Prove each shape is a right triangle by showing that the triangle has a right angle.**

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1) *Given:* A(1, 1), B(4, 4), & C(5, –3)

 *Prove* : ABC is a right triangle

****2) *Given:* D(–2, 2), E(1, 4), & F(3, 1)

 *Prove:* DEF is a right triangle

****Directions: If $\overbar{AC}$ is the hypotenuse of a right triangle, find two ordered pairs that could represent Point B in ∆ABC.

3) A(2, 3) and C(–3, –2) 4) A(–1, –1) & C(0, 2)

**Directions: Prove each triangle is a right triangle by using Pythagorean Theorem.**

5) A(0, 1), B(5, 2), & C(3, 4) 6) A(–2, –3), B(–1, 1), & C(3, 0)

**Directions: Complete each proof.**

7) Prove that D(–2, –2), E(5, –1), F(1, 2) is an isosceles right triangle.

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8) Prove that M(–2, 4), N(4, 4), P(–2, –4) is a scalene right triangle.