

### Converse of Pythagorean Theorem

- Determines if a triangle is a right triangle by using  $a^2 + b^2 = c^2$ .
- Pythagorean Triples: A set of 3 POSITIVE INTEGERS such that  $a^2 + b^2 = c^2$ .

Ex. Determine if each set of #s form a Pythagorean Triple.

$$30, 40, 50$$

$$30^2 + 40^2 = 50^2$$

$$900 + 1600 = 2500$$

$$2500 = 2500 \quad \boxed{\text{YES}}$$

Ex. Determine if the set of #s form a right triangle.

$$4.3, 8.3, 6.9$$

~~$$4.3^2 + 8.3^2 = 6.9^2$$~~

$$4.3^2 + 6.9^2 = 8.3^2$$

$$18.49 + 47.61 = 68.89$$

$$66.1 \neq 68.9 \quad \boxed{\text{NO}}$$