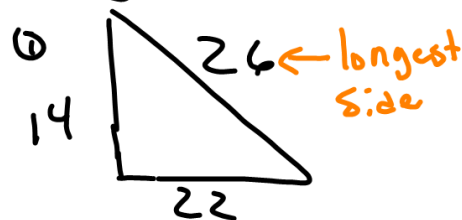


## 7.2 Converse of Pythagorean

Pyth Thm - If a right  $\Delta$ , then  $a^2 + b^2 = c^2$

Converse - If  $a^2 + b^2 = c^2$ , then it is a right triangle

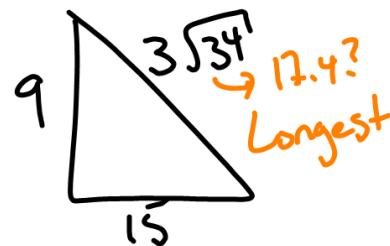
Right  $\Delta$  or not?



$$14^2 + 22^2 \stackrel{?}{=} 26^2$$

$$196 + 484 = 676$$

$$680 \neq 676 \quad \text{Not right}$$



$$9^2 + 15^2 = (3\sqrt{34})^2$$

$$81 + 225 = 306$$

$$306 = 306$$

A right  $\Delta$ !

Also

If  $c^2 < a^2 + b^2$ , is acute  $\Delta$  

$c^2 > a^2 + b^2$ , is obtuse  $\Delta$  