

# Pythagorean Inequality Theorem

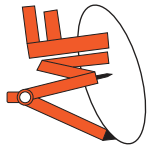
Name \_\_\_\_\_

Score \_\_\_\_\_

TI:13

Let  $a$ ,  $b$ , and  $c$  are the sides of the triangle.  $c$  is the longest side of the triangle. Complete the table.

$a$	$b$	$c$	$a^2$	$b^2$	$a^2 + b^2$	$c^2$	$a^2 + b^2 > c^2$ $a^2 + b^2 < c^2$ $a^2 + b^2 = c^2$	Acute/Obtuse/Right Triangle
6 ft	7 ft	12 ft						
3 yd	4 yd	5 yd						
11 in	16 in	18 in						
5 ft	12 ft	13 ft						
8 yd	14 yd	15 yd						
2 in	6 in	10 in						



## Pythagorean Inequality Theorem

Name \_\_\_\_\_

Score \_\_\_\_\_

TI:13

### Answer key

Let  $a$ ,  $b$ , and  $c$  are the sides of the triangle.  $c$  is the longest side of the triangle. Complete the table.

$a$	$b$	$c$	$a^2$	$b^2$	$a^2 + b^2$	$c^2$	$a^2 + b^2 > c^2$ $a^2 + b^2 < c^2$ $a^2 + b^2 = c^2$	Acute/Obtuse/Right Triangle
6 ft	7 ft	12 ft	<b>36</b>	<b>49</b>	<b>85</b>	<b>144</b>	<b>&lt;</b>	<b>Obtuse Triangle</b>
3 yd	4 yd	5 yd	<b>9</b>	<b>16</b>	<b>25</b>	<b>25</b>	<b>=</b>	<b>Right Triangle</b>
11 in	16 in	18 in	<b>121</b>	<b>256</b>	<b>377</b>	<b>324</b>	<b>&gt;</b>	<b>Acute Triangle</b>
5 ft	12 ft	13 ft	<b>25</b>	<b>144</b>	<b>169</b>	<b>169</b>	<b>=</b>	<b>Right Triangle</b>
8 yd	14 yd	15 yd	<b>64</b>	<b>196</b>	<b>260</b>	<b>225</b>	<b>&gt;</b>	<b>Acute Triangle</b>
2 in	6 in	10 in	<b>4</b>	<b>36</b>	<b>40</b>	<b>100</b>	<b>&lt;</b>	<b>Obtuse Triangle</b>