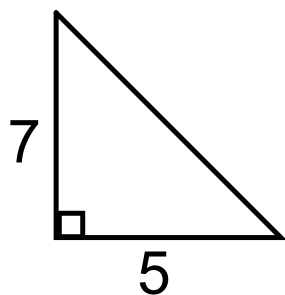
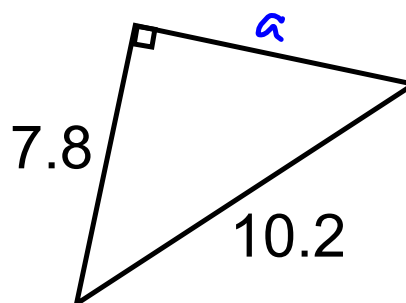


## Pythagorean Theorem

$$a^2 + b^2 = c^2$$

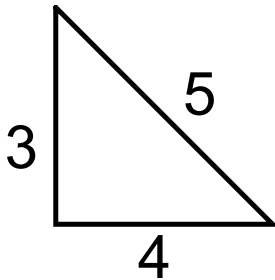


$$\begin{aligned}
 c^2 &= a^2 + b^2 \\
 &= 7^2 + 5^2 \\
 \text{long} & \\
 \text{side} &= 49 + 25 \\
 &= 74 \\
 c &= \sqrt{74} \\
 &= 8.6
 \end{aligned}$$



$$\begin{aligned}
 a^2 &= c^2 - b^2 \\
 &= 10.2^2 - 7.8^2 \\
 &= 43.2 \\
 a &= \sqrt{43.2} \\
 &= 6.6
 \end{aligned}$$

1. Is the following a right angle triangle?



Check

$a^2 + b^2$	$c^2$
$3^2 + 4^2$	$5^2$
$9 + 16$	$25$
$25$	

$LS = RS \therefore$  the triangle is right angled.

2. Do the following numbers make a pythagorean triple?

2.1, 7.2, 7.5

$a^2 + b^2$	$c^2$
$2.1^2 + 7.2^2$	$7.5^2$
$56.25$	$56.25$

$LS = RS \therefore$  the numbers make a pythagorean triple.

Homework

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Worksheet