

CHECK YOUR UNDERSTANDING QUESTIONS

Before you start, circle 3 questions that you think are most important for your learning. The answer key is on the whiteboard in the classroom.

1. Explain the Pythagorean Theorem in your own words:

It is a theorem stating that the square of the hypotenuse of a \triangle is = to the sum of the squares of the other 2 sides.

2. Find the unknown sides of the following right triangles.

$a^2 = c^2 - b^2$
 $a^2 = 8^2 - 3^2$
 $a^2 = 64 - 9$
 $a^2 = \sqrt{55}$
 $a = 7.4 \text{ cm}$

$a^2 + b^2 = c^2$
 $7.4^2 + 7^2 = c^2$
 $55 + 49 = c^2$
 $\sqrt{104} = c$
 $10.2 = c$

$a^2 = c^2 - b^2$
 $a^2 = 6^2 - 4^2$
 $a^2 = 36 - 16$
 $a^2 = \sqrt{20}$
 $a = 4.5$

$a^2 + b^2 = c^2$
 $4.5^2 + 9^2 = c^2$
 $20 + 81 = c^2$
 $\sqrt{101} = c$
 $= 10.04 \text{ cm}$

$b^2 = c^2 - a^2$
 $b^2 = 8^2 - 3^2$
 $b^2 = 64 - 9$
 $b^2 = \sqrt{55}$
 $b = 7.4 \text{ cm}$

$a^2 = c^2 - b^2$
 $a^2 = 5^2 - 4^2$
 $a^2 = 25 - 16$
 $a^2 = \sqrt{9}$
 $a = 3 \text{ cm}$

$b^2 = c^2 - a^2$
 $b^2 = 13^2 - 6^2$
 $b^2 = 169 - 36$
 $b^2 = \sqrt{133}$
 $b = 10.4$

$a^2 = c^2 - b^2$
 $a^2 = 13^2 - 10.4^2$
 $a^2 = 169 - 108$
 $a^2 = \sqrt{61}$
 $a = 7.8 \text{ cm}$

$b = 7.4 \text{ cm}$

$a = 7.8 \text{ cm}$