

1. Is this a Pythagorean Triple?

45, 27, 36

Find the third side of the right triangle. All sides are whole numbers.

2. 28, 35, ____

3. 9, 40, ____

4. Is each triangle right, acute, or obtuse?

a. 13, 84, 92

b. 19, 180, 181

c. 28, 45, 51

DOES $45^2 = 27^2 + 36^2$?

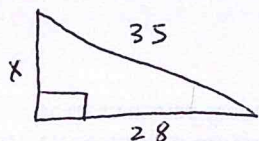
$2025 = 729 + 1296$

$2025 = 2025$ ✓

yes, 45, 27, 36 is a pythagorean Triple because these 3 #'s make the pythagorean Theorem true

Find the third side of the right triangle. All sides are whole numbers.

2. 28, 35, 21



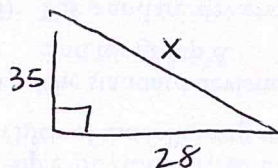
$35^2 = x^2 + 28^2$

$x^2 = 35^2 - 28^2$

$x = \sqrt{35^2 - 28^2}$

$x = 21$ ✓

OR

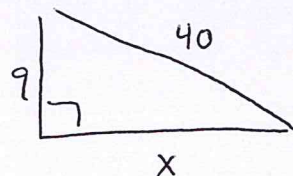


$x^2 = 35^2 + 28^2$

$x = \sqrt{35^2 + 28^2}$

$x = 44.82$ ✗

3. 9, 40, 41



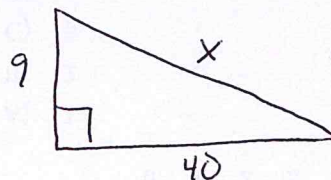
$40^2 = x^2 + 9^2$

$x^2 = 40^2 - 9^2$

$x = \sqrt{40^2 - 9^2}$

$x = 38.97$ ✗

OR



$x^2 = 9^2 + 40^2$

$x = \sqrt{9^2 + 40^2}$

$x = 41$ ✓

4. Is each triangle right, acute, or obtuse?

a. 13, 84, 92

$c = 92$

$a \neq b = 13 \neq 84$

$c^2 = 8464$

$a^2 + b^2 = 7225$

$c^2 > a^2 + b^2$

THIS IS AN OBTUSE Δ

b. 19, 180, 181

$c = 181$

$a \neq b = 19 \neq 180$

$c^2 = 32761$

$a^2 + b^2 = 32761$

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

THIS IS A RIGHT Δ

c. 28, 45, 51

$c = 51$

$a \neq b = 28 \neq 45$

$c^2 = 2601$

$a^2 + b^2 = 2809$

$c^2 < a^2 + b^2$

THIS IS AN ACUTE Δ