Warm-Up November 9, 2015

Find the Benchmarks!

a) $\sqrt{42.6}$

$\sqrt{36}$ $\sqrt{49}$

6 7

b) $\sqrt{\frac{23}{46}}$

$\sqrt{\frac{25}{49}}$

$\frac{5}{7}$

c) $\sqrt{0.85}$

$\sqrt{\frac{85}{100}}$ $\sqrt{0.85}$

$\sqrt{\frac{81}{100}}$ $\sqrt{\frac{100}{100}}$ $\sqrt{0.81}$ $\sqrt{1.00}$

$\frac{9}{10}$ $\frac{10}{10}$ 0.9 1

d) $\sqrt{0.70}$

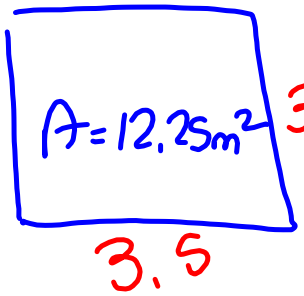
$\sqrt{0.64}$ $\sqrt{0.81}$ $\sqrt{\frac{70}{100}}$

0.8 0.9

$\sqrt{\frac{64}{100}}$ $\sqrt{\frac{81}{100}}$

$\frac{8}{10}$ $\frac{9}{10}$

$\sqrt{\text{Area}}$ = side length



$P = 4s$

$= 4(3.5)$

$= 14$

$$\sqrt{\frac{49}{64}} = \frac{7}{8} \times \frac{7}{8}$$

$$\sqrt{\frac{49}{64}} = \frac{7 \times 7}{8 \times 8}$$

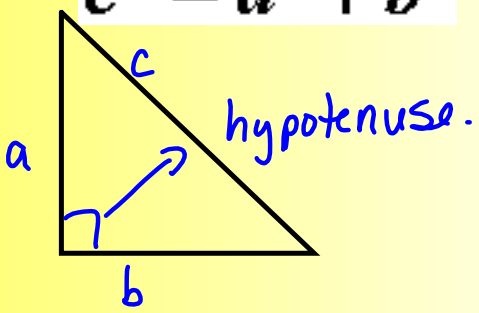
Pythagorean Theorem

"In any right triangle, the square of the length of the hypotenuse is equal to the sum of the squares of the lengths of the other two sides."

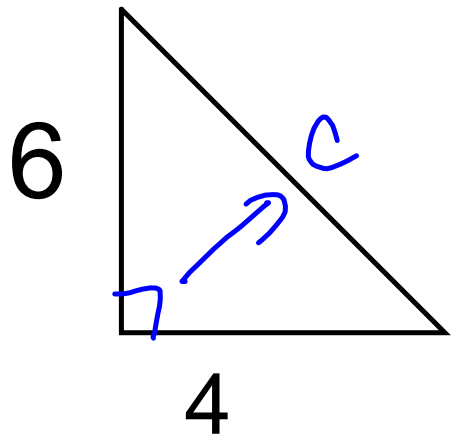
The side that is opposite the right angle in a right triangle. = hypotenuse.

This relationship can be stated as:

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



Find the length of the hypotenuse



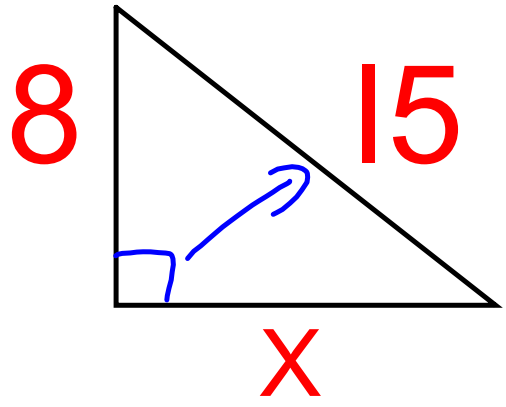
$c^2 = a^2 + b^2$

$c^2 = 6^2 + 4^2$

$c^2 = 36 + 16$

$\sqrt{c^2} = \sqrt{52}$

$c = 7.2$



$225 = \square + 64$

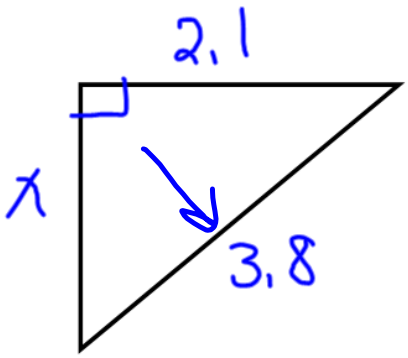
$c^2 = a^2 + b^2$

$15^2 = x^2 + 8^2$

$225 = x^2 + 64$

$\sqrt{x^2} = \sqrt{161}$

$x = 12.7$



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

$3.8^2 = a^2 + 2.1^2$

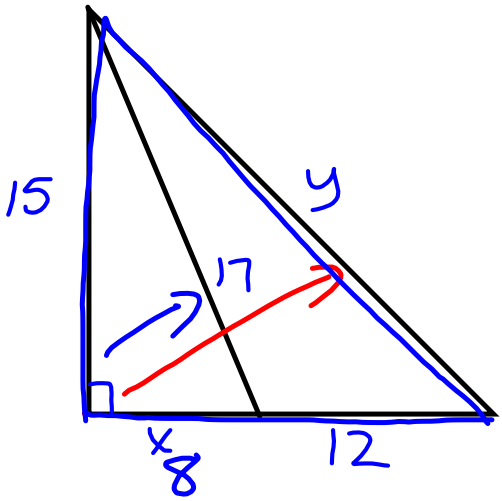
$14.44 = a^2 + 4.41$

$14.44 = \square + 4.41$

$15 = \_ + 11$

$\sqrt{a^2} = \sqrt{10.03}$

$a = 3.2$



solve for "x"

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

$17^2 = 15^2 + b^2$

$289 = 225 + b^2$

$\sqrt{b^2} = \sqrt{64}$

$b = 8$

solve for "y"

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

$c^2 = 20^2 + 15^2$

$c^2 = 400 + 225$

$\sqrt{c^2} = \sqrt{625}$

$c = 25$

Homework

1. **Page 19**
   11 [a,c,e,g]
   12 [a, c]
   13 → sketch

) Benchmarks

2. **page 21**
   5, 8, 9 [sketch]

3. **worksheet even only**
   Mark on the sheet