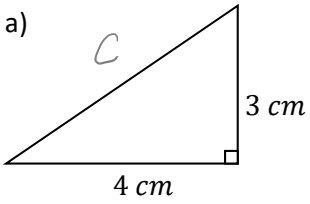
FMP10 Name: _____
Date: _____

Unit 1: Right Angle Trigonometry
1.0 Pythagoras & Cross-Multiplication (Review)

Recall: The Pythagorean Theorem $a^2 + b^2 = c^2$ [where c is the hypotenuse length]

Ex. Determine the length of the missing side (answers to the nearest tenth when necessary).

a)



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

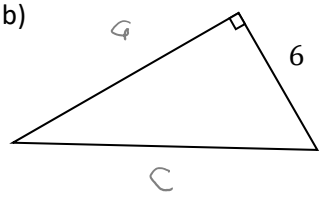
$3^2 + 4^2 = c^2$

$9 \quad 16$

$25 = c^2$

$c = \sqrt{25} = 5$ cm

b)



$a^2 + 6^2 = 12^2$

$a^2 + 36 = 144$

$-36 \quad -36$

$a^2 = 108$

$a = \sqrt{108} = 10.4$ (tenth)

Cross-Multiply and divide: "Multiply the pair & divide by the spare"

$$\frac{2}{3} \neq \frac{12}{18}$$

$2 \cdot 18 = 3 \cdot 12$

$36 = 36$ ✓

Ex. Fill in the blank:

a) $\frac{3}{5} = \frac{\quad}{4}$

$\frac{3 \cdot 4}{5} = \frac{12}{5}$

OR $2\frac{2}{5}$ or 2.4

b) $\frac{3}{4} = \frac{5}{\quad}$

$\frac{4 \cdot 5}{3} = \frac{20}{3}$

OR $6\frac{2}{3}$ or $6.\overline{6}$ or 6.7

Practice: WS 166/84