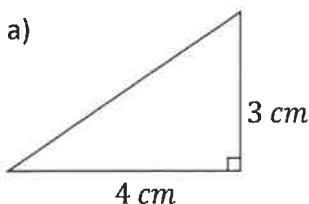
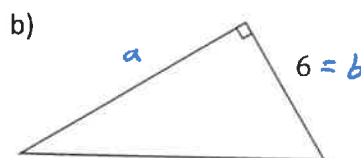


Date: Sept 11, 2026Unit 1: Right Angle Trigonometry1.0 Pythagoras & Cross-Multiplication (Review)Recall: The Pythagorean Theorem $a^2 + b^2 = c^2$ [where c is the hypotenuse length]

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



$$\begin{aligned}
 a^2 + b^2 &= c^2 \\
 3^2 + 4^2 &= c^2 \\
 9 + 16 &= c^2 \\
 \sqrt{25} &= \sqrt{c^2} \\
 \boxed{5\text{ cm} = c}
 \end{aligned}$$



$$\begin{aligned}
 c &= 12 \\
 a^2 + b^2 &= c^2 \\
 a^2 + 6^2 &= 12^2 \\
 a^2 + 36 &= 144 \\
 -36 \quad -36 \\
 \hline
 a^2 &= 108 \\
 a &= \boxed{10.4} \quad (\text{tenths})
 \end{aligned}$$

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

$$\begin{array}{r}
 2 \swarrow 12 \\
 \div 3 \searrow 18 \\
 18 \times 2 \div 3 = 12
 \end{array}$$

Ex. Fill in the blank:

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

$$\begin{aligned}
 3 \times 4 \div 5 &= \frac{12}{5} \\
 &= 2\frac{2}{5} \text{ or } 2.4
 \end{aligned}$$

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

$$\begin{aligned}
 4 \times 5 \div 3 &= \frac{20}{3} \\
 &= 6.\bar{6} \text{ or } 6\frac{2}{3}
 \end{aligned}$$

Practice: WS 166/84 (work shown on sheet or separate)