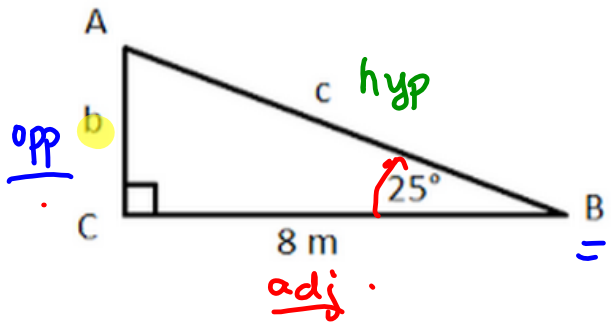
E.g., 1. *Using the Trig Ratios to Solve for Missing Sides*



For side *b*:

1-*Choose a ratio*

tan B

2-*Set up a proportion*

$\tan 25° = \frac{b}{8}$

$\sin\theta = \frac{opp}{hyp}$ SOH

$\cos\theta = \frac{adj}{hyp}$ CAH

$\tan\theta = \frac{opp}{adj}$ TOA

3-*Evaluate the sin/cos/tan of the angle to 4 decimal places*

$\tan 25° = \frac{0.4663}{1}$

4-*Solve*

$\tan 25° = \frac{0.4663}{1}$

4-*Solve*

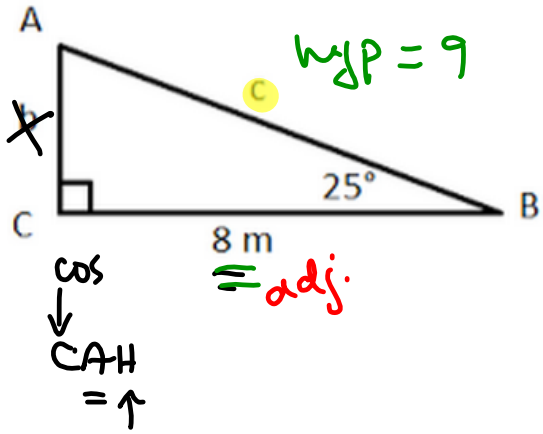
$8 \cdot \frac{0.4663}{1} = \frac{b}{8} \cdot 8$

$8(0.4663) = b$

$3.7305 = b$

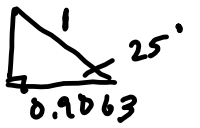
$\therefore 4 = b$

E.g., 1. *Using the Trig Ratios to Solve for Missing Sides*



3-*Evaluate the sin/cos/tan of the angle to 4 decimal places*

$\cos 25° \doteq \frac{0.9063}{1}$



For side *c*:

1-*Choose a ratio*

Cos

2-*Set up a proportion*

$\cos 25° = \frac{8}{c}$

4-*Solve*

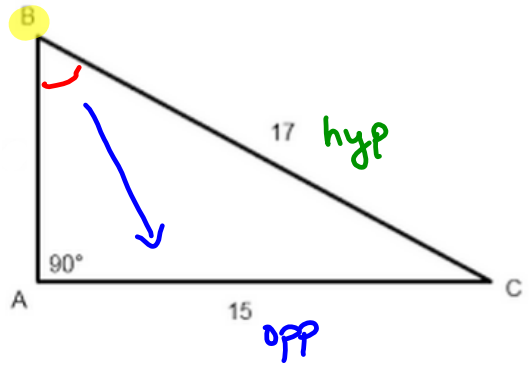
$\frac{0.9063}{1} \doteq \frac{8}{c}$ · c · 1

$c(0.9063) \doteq 8$

$\frac{c(0.9063)}{0.9063} \doteq \frac{8}{0.9063}$

$c \doteq 9$

E.g., 1. *Using the INVERSE Trig Ratios to Solve for Missing Angles*



For angle B:

SOH

$\sin B = \frac{15}{17}$

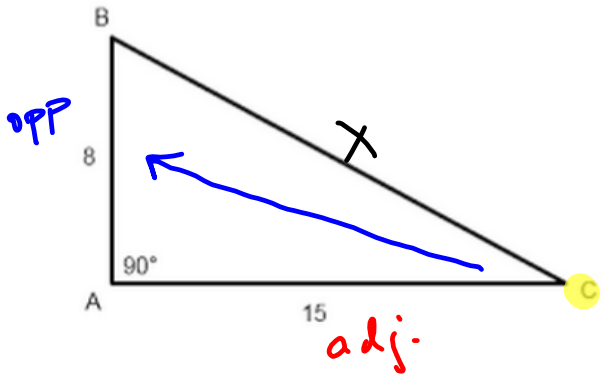
INVERSE SINE

$B = \sin^{-1}\left(\frac{15}{17}\right)$

$B \doteq 62°$

$\approx$ "approximately"

E.g., 1. *Using the INVERSE Trig Ratios to Solve for Missing Angles*



For angle C: TOA

$$\tan C = \frac{8}{15}$$

$$C = \tan^{-1}\left(\frac{8}{15}\right)$$

$$C \doteq 28^\circ$$