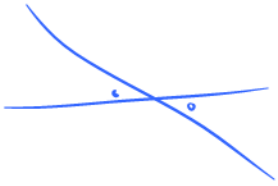
2. $\angle A = \angle D$ 90° A

$\angle ACB = \angle DCE$ OAT A

$\triangle ACB \sim \triangle DCE$ by AA~



Now solve!

1. $\frac{6}{1.5} = 4$

$\frac{4.0}{1.0} = 4$

$\frac{7.2}{1.8} = 4$

→ same ratios

$\triangle ACB \sim \triangle EDF$ by SSS~

Test (mini) on Tuesday, Oct 27

Solving for Angles using the Primary Trigonometric Ratios

Solve for θ in the following examples

$\sin\theta = 0.4782$

$\theta = \sin^{-1}(0.4782)$

$\theta = 28.6°$

$\tan\theta = 2.01$

$\theta = \tan^{-1}(2.01)$

$\theta = 63.5°$

$\cos\theta = \frac{3}{5}$

$\theta = \cos^{-1}\left(\frac{3}{5}\right)$

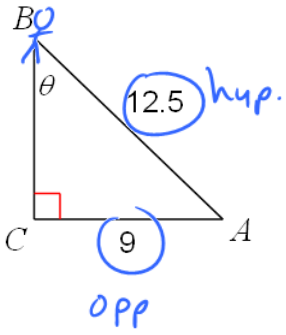
$\theta = 53.1°$

To solve for the angle, you must use the inverse function, which is $\sin^{-1}$, $\cos^{-1}$, $\tan^{-1}$

Steps to Solve:

1. Identify the angle you are solving.
2. Identify 2 known and ~~unknown~~ side 5.
3. Write the appropriate Trig Ratio using #2 and solve

SOH CAH TOA

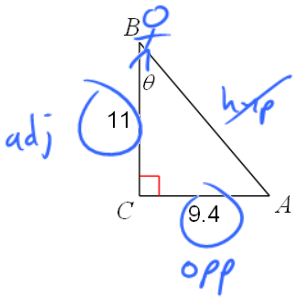


use SOH

$\sin B = \frac{9}{12.5}$

$\angle B = \sin^{-1}\left(\frac{9}{12.5}\right)$

$\angle B = 46°$

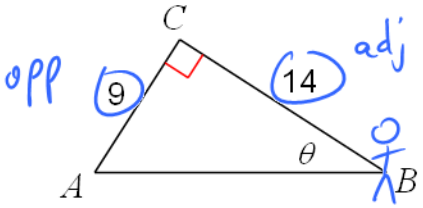


use TOA

$\tan B = \frac{9.4}{11}$

$\angle B = \tan^{-1}\left(\frac{9.4}{11}\right)$

$\angle B = 40.5°$



use TOA

$\tan B = \frac{9}{14}$

$\angle B = \tan^{-1}\left(\frac{9}{14}\right)$

$\angle B = 32.7°$

Do #21-30