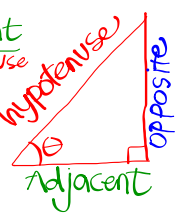
5-1 Trig Functions

Writing Trig Ratios Task

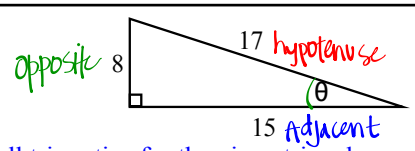
SOH $= \frac{\text{opposite}}{\text{hypotenuse}}$
sine(sinθ)

CAH $= \frac{\text{Adjacent}}{\text{hypotenuse}}$
Cosine(cosθ)

TOA $= \frac{\text{opposite}}{\text{Adjacent}}$
Tangent(tanθ)



Only For right triangles

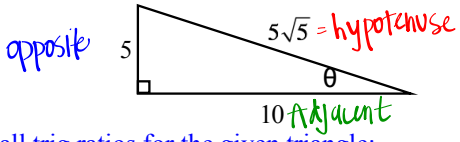


Find all trig ratios for the given triangle:

$\sin\theta = \frac{8}{17}$

$\cos\theta = \frac{15}{17}$

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

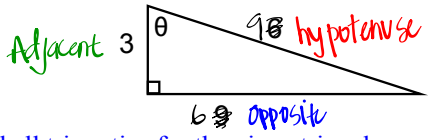


Find all trig ratios for the given triangle:

$\sin\theta = \frac{\cancel{5}}{\cancel{5}\sqrt{5}} = \frac{1}{\sqrt{5}}$

$\cos\theta = \frac{\cancel{10}}{\cancel{5}\sqrt{5}} = \frac{2}{\sqrt{5}}$

$\tan\theta = \frac{\cancel{5}}{\cancel{10}} = \frac{1}{2}$

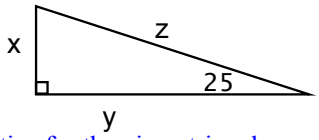


Find all trig ratios for the given triangle:

$\sin\theta = \frac{\cancel{6}\,2}{\cancel{9}\,3} = \frac{2}{3}$

$\cos\theta = \frac{\cancel{3}\,1}{\cancel{9}\,3} = \frac{1}{3}$

$\tan\theta = \frac{6}{3} = 2$

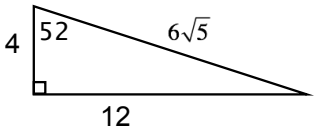


Find all trig ratios for the given triangle:

$\sin 25° = \frac{x}{z}$

$\cos 25° = \frac{y}{z}$

$\tan 25° = \frac{x}{y}$



Find all trig ratios for the given triangle:

$\sin 52° = \frac{12}{6\sqrt{5}} = \frac{2}{\sqrt{5}}$

$\cos 52° = \frac{4}{6\sqrt{5}} = \frac{2}{3\sqrt{5}}$

$\tan 52° = \frac{12}{4} = 3$

Use a Calculator to find the following:

sin (27) = .454

$\sin^{-1}(3/5)$ = 36.87

cos(58) =

$\cos^{-1}(17.5)$ =

tan (81) =

$\tan^{-1}(21/7)$ =