April 23, 2012

Alg2

Anything to correct?

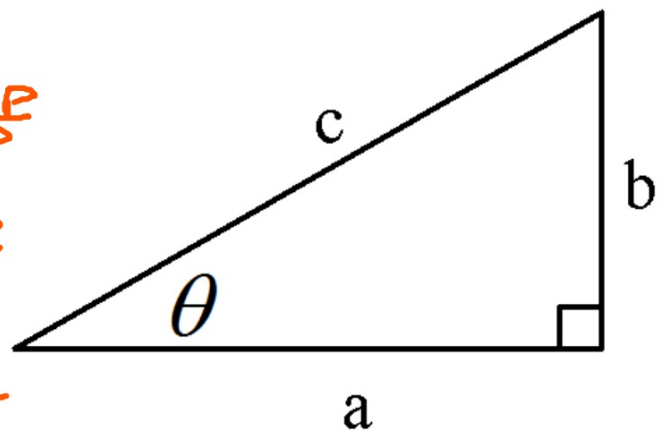
"Keep it down. Don't make me come in there."

4/23 - Right Triangle Trig

$\sin = \frac{opp}{hyp}$ $\csc = \frac{hyp}{opp}$

$\cos = \frac{adj}{hyp}$ $\sec = \frac{hyp}{adj}$

$\tan = \frac{opp}{adj}$ $\cot = \frac{adj}{opp}$



$\sin\theta = \frac{b}{c}$

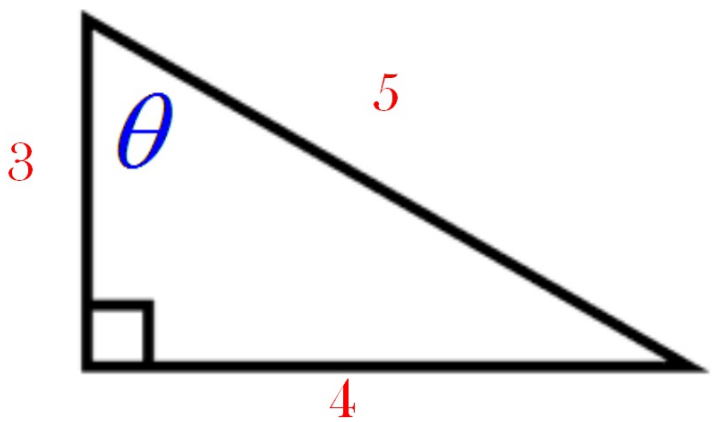
$\cos\theta = \frac{a}{c}$

$\tan\theta = \frac{b}{a}$

$\csc\theta = \frac{c}{b}$
cosecant

$\sec\theta = \frac{c}{a}$
secant

$\cot\theta = \frac{a}{b}$
cotangent



$\sin\theta = \frac{4}{5}$

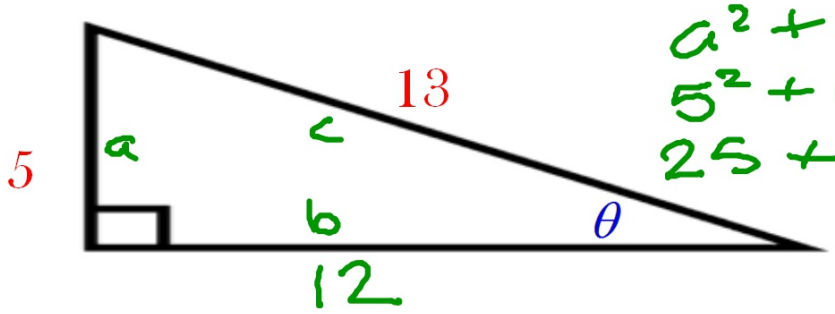
$\csc\theta = \frac{5}{4}$

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

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

$\tan\theta = \frac{4}{3}$

$\cot\theta = \frac{3}{4}$



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

$5^2 + b^2 = 13^2$

$25 + b^2 = 169$

$b^2 = 144$

$b = 12$

$\sin\theta = \frac{5}{13}$ $\qquad$ $\csc\theta = \frac{13}{5}$

$\cos\theta = \frac{12}{13}$ $\qquad$ $\sec\theta = \frac{13}{12}$

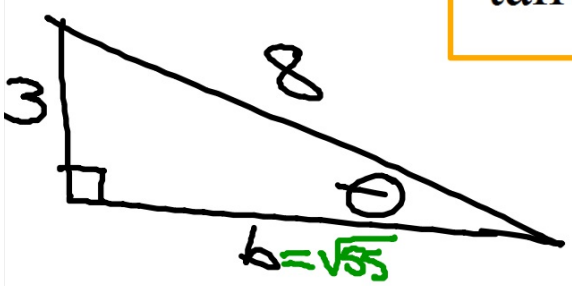
$\tan\theta = \frac{5}{12}$ $\qquad$ $\cot\theta = \frac{12}{5}$

If $\sin\theta = \frac{3}{8}$, find the other five functions.

$\sin\theta = \frac{3}{8}$	$\csc\theta = \frac{8}{3}$
$\cos\theta = \frac{\sqrt{55}}{8}$	$\sec\theta = \frac{8}{\sqrt{55}} = \frac{8\sqrt{55}}{55}$
$\tan\theta = \frac{3}{\sqrt{55}} = \frac{3\sqrt{55}}{55}$	$\cot\theta = \frac{\sqrt{55}}{3}$

$$\frac{3}{\sqrt{55}} \cdot \frac{\sqrt{55}}{\sqrt{55}}$$

$$= \frac{3\sqrt{55}}{55}$$

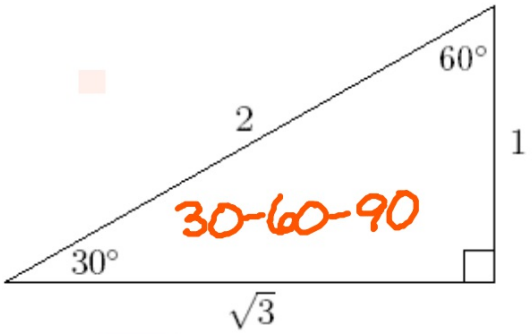


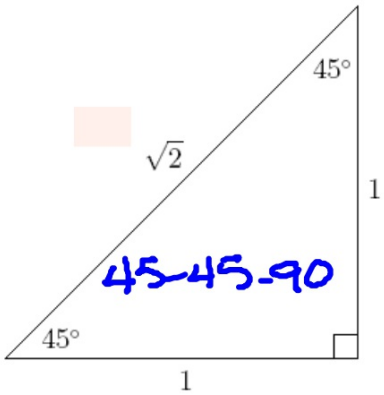
$$3^2 + b^2 = 8^2$$

$$9 + b^2 = 64$$

$$b^2 = 55$$

$$b = \sqrt{55}$$





$$\tan 45^o = \frac{1}{1} = 1 \qquad \sin 45^o = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\csc 30^o = \frac{2}{1} = 2 \qquad \cos 30^o = \frac{\sqrt{3}}{2}$$

$$\sec 60^o = \frac{2}{1} = 2 \qquad \cot 60^o = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$$

Homework

Page 682
8-40 even

Due Tuesday