MONDAY November 21, 2011
HW#16
Aim: How do we determine the measure of angles in a right triangles given 2 sides?
Test#4 tomorrow 11/22/2011 based on hw#14
hw#9-#18 Due 11/30/2011 at 11:45pm.
WED/FRI Tutoring 3-4:30pm Room 319

Do Now:

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nd the value of the sine, cosine, and tangent functions for θ.

Write and simplify the fractions.

a. $\sin\theta = \frac{\text{opp.}}{\text{hyp.}} =$ _____

b. $\cos\theta = \frac{\text{adj.}}{\text{hyp.}} =$ _____

c. $\tan\theta = \frac{\text{opp.}}{\text{adj.}} =$ _____

1. 50, 48, 14, θ — hyp, opp, adj.; $\sin\theta = \frac{48}{50}$, $\cos\theta = \frac{14}{50}$, $\tan\theta = \frac{48}{14}$

2. 24, 40, 32, θ — hyp, opp, (adj.); $\sin\theta = \frac{24}{40}$, $\cos\theta = \frac{32}{40}$, $\tan\theta = \frac{24}{32}$

3. 18, 82, 80, θ — hyp, opp, adj.; $\sin\theta = \frac{18}{82}$, $\cos\theta = \frac{80}{82}$, $\tan\theta = \frac{18}{80}$

4. 25, 65, 60, θ — hyp, opp, adj.; $\sin\theta = \frac{60}{65}$, $\cos\theta = \frac{25}{65}$, $\tan\theta = \frac{60}{25}$

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I- Trigonometric Ratio

1) Find

a) 4, 3, 5, θ — $\sin\theta = \frac{4}{5}$

b) 25, 15, 2 — $\sin\theta = \frac{25}{2}$

these angles are different

2) Find 16, 30, 34, θ — $\sin\theta = \frac{30}{34}$, $\cos\theta = \frac{16}{34}$, $\tan\theta = \frac{30}{16}$, $\theta = 61.92751$

$\sin 61.92751 = \frac{30}{34}$

$\sin^{-1}\left(\frac{30}{34}\right) = 61.92751$

$\sin 61.9275 = \left(\frac{30}{34}\right)$

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II- Find the Missing Parts.

1) 30, 74 (hyp), x (opp)

Find $x = 66.08$

$\sin 30^\circ = \frac{x}{74}$

Solve for x (Next class)

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