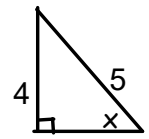
1. 

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

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

$x = \sin^{-1}\frac{4}{5}$

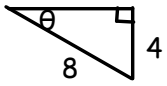
$= 53^\circ$

Formulas

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

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

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

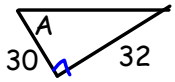
2. 

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

$\sin\theta = \frac{4}{8}$

$\theta = \sin^{-1}\frac{4}{8}$

$= 30^\circ$

3. 

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

$\tan A = \frac{32}{30}$

$A = \tan^{-1}(32/30)$

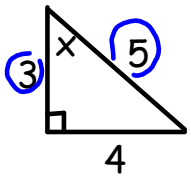
$= 47^\circ$

Nov 6-9:55 AM

Homework

1. $\tan 35^0 =$ 0.7002

2. Find x



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

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

$= 0.6$

$x = \cos^{-1} 0.6$

$= 53^\circ$

3. $\sin\theta = 0.6345$. Find θ

$\theta = \sin^{-1}(0.6345)$

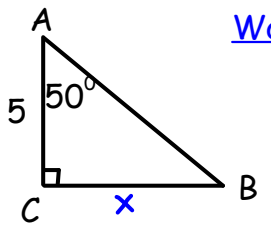
$= 39^\circ$

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

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

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

Nov 6-10:10 AM



Worksheet

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

$\tan 50° = \frac{x}{5}$

a) Find BC

$x = 5\tan 50°$

$= 5.96$

b) Find AB

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

$AB^2 = 5^2 + 5.96^2$

$= 25 + 35.5216$

$= 60.5216$

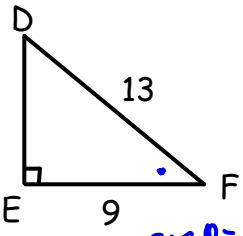
$AB = \sqrt{60.5216}$

$= 7.8$

c) Find $\angle B$

$\angle B = 180 - 90 - 50$

$= 40°$



a) Find $\angle F$

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

$\cos F = \frac{9}{13}$

$F = \cos^{-1}(9/13)$

$= 46°$

b) Find DE

$DE^2 = 13^2 - 9^2$

$= 169 - 81$ or

$= 88$

$DE = \sqrt{88}$

$= 9.4$

$\sin 46° = \frac{DE}{13}$

$DE = 13\sin 46°$

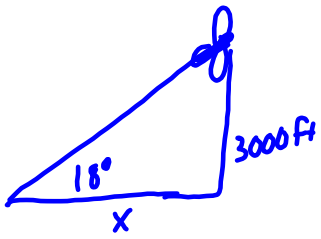
$= 9.4$

c) Find $\angle D = 180 - 46 - 90$

$= 44°$

Nov 6-10:26 AM

- **Word Problems**
  1. Create a diagram
  2. Identify the given data
  3. Select a formula



$\tan 18° = \frac{3000}{x}$

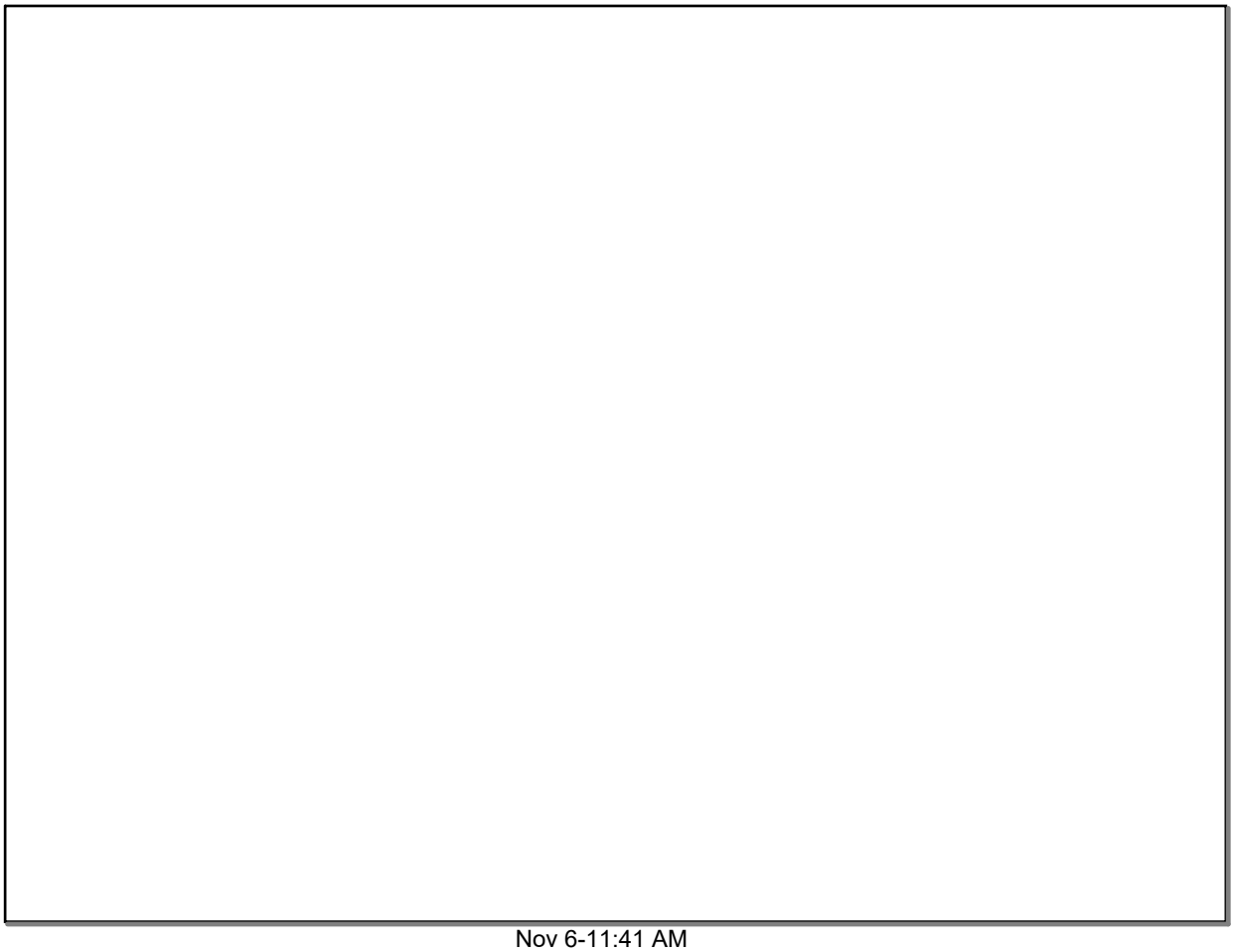
$2x = 8$

$\frac{(\tan 18)x}{\tan 18} = \frac{3000}{\tan 18}$

$x = \frac{3000}{\tan 18}$

$= 9233.1$ ft

Nov 6-10:35 AM



Nov 6-11:41 AM