

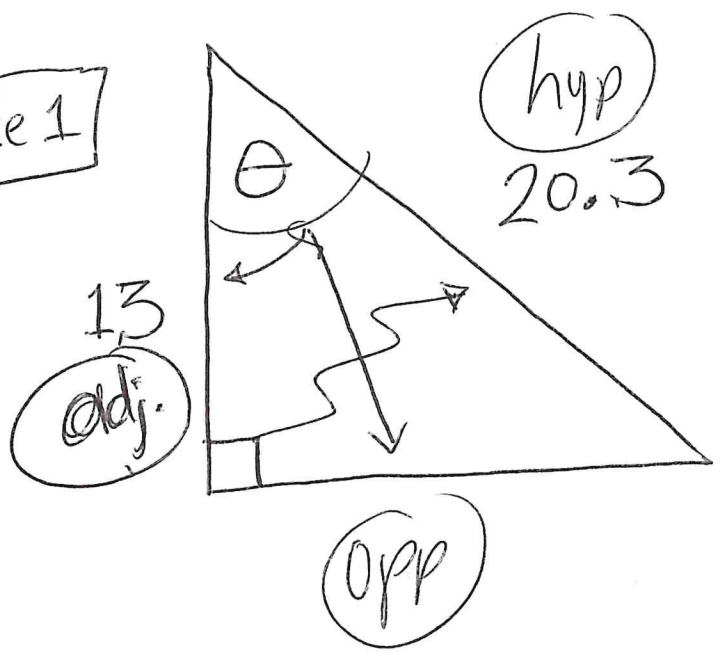
1/10/2022

Lessons 33/34

# Sine, cosine, tangent with decimals

## Part 1 Finding Angle Measure

ie 1



$\theta$  - theta (missing)

SOH  
CAH  
TOA

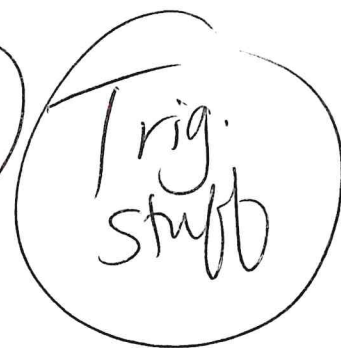
$$\cos \theta = \frac{A}{H} = \frac{13}{20.3}$$

$$\cos \theta = \frac{13 \div 20.3}{1} = .6403$$

$$\cos \theta = .6403 = 51^\circ$$

(1)

Calculator fun!

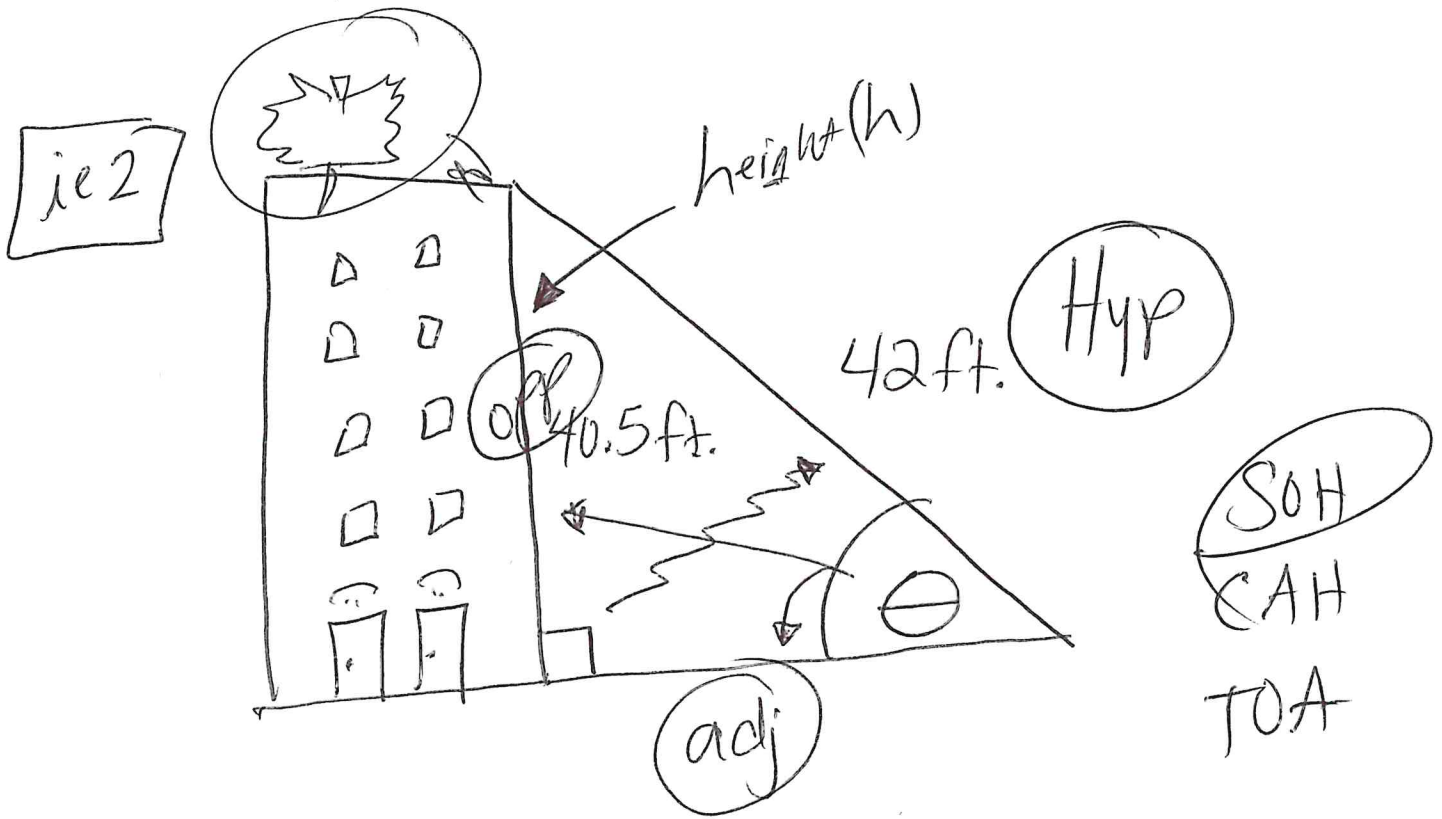


Degree  $\rightarrow$  Decimal

$$\underline{\sin}(30^\circ) = 0.5$$

Decimal  $\rightarrow$  Degree

$$2^{\text{ND}} \underline{\sin}(0.5) = 30^\circ$$



$$\sin \theta = \frac{o}{H} = \frac{40.5}{42}$$

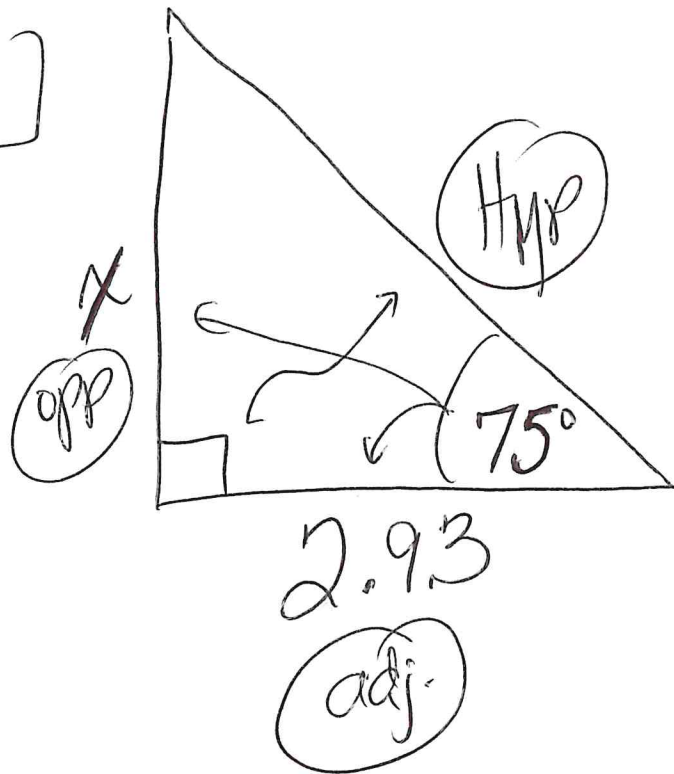
$$\sin \theta = 40.5 \div 42$$

$$\sin \theta = 0.9643$$

$$\sin \theta = 74^\circ$$

# Part 2 Finding Side Length

ie 1



SOH  
CAH  
TOA

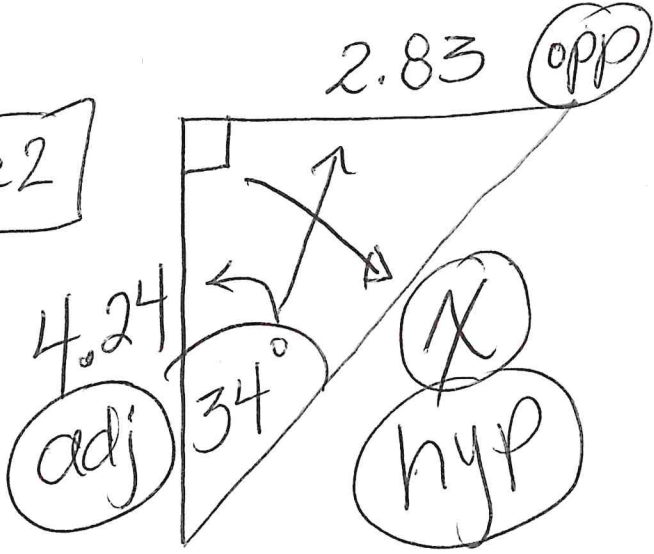
$$\frac{\sin 75^\circ}{1} = \frac{0}{A} = \frac{X}{2.93}$$

$$\frac{3.7320}{1} = \frac{X}{2.93}$$

$$10.93 = X$$

We Love Math!

ie 2



SOH  
CAH  
~~TOA~~

Sine

$$\sin 34^\circ = \frac{2.83}{X}$$

$$\frac{.5592}{1} = \frac{2.83}{X}$$

$$.5592[X] = 2.83$$

$$.5592 \div .5592$$

$$X = 5.1$$

Cosine

$$\cos 34^\circ = \frac{4.24}{X}$$

$$\frac{.8290}{1} = \frac{4.24}{X}$$

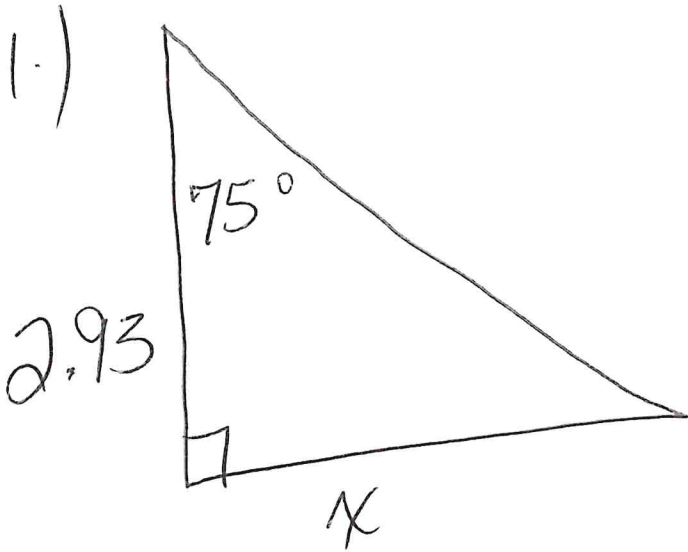
$$.8290[X] = 4.24$$

$$\div .8290 \quad \div .8290$$

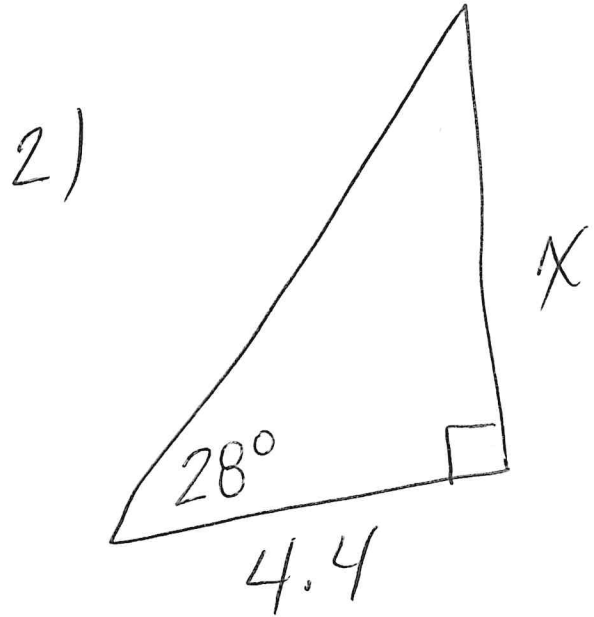
$$X = 5.1$$

# Lesson 33/34 HWK

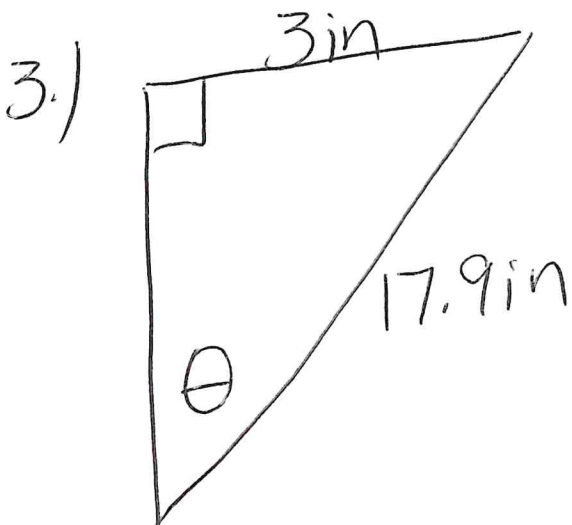
pgs. 405-406 #1-4



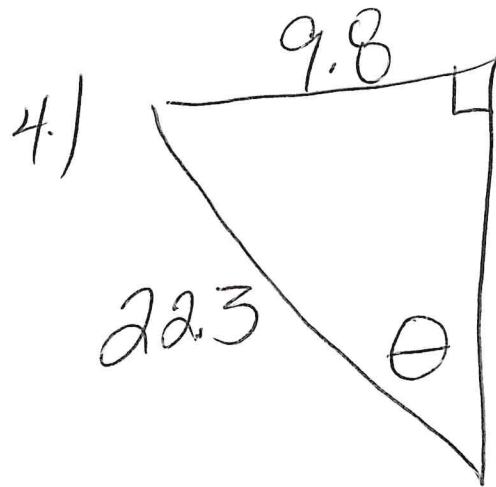
$x =$  \_\_\_\_\_



$x =$  \_\_\_\_\_



$\theta =$  \_\_\_\_\_



$\theta =$  \_\_\_\_\_