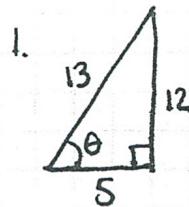


TRIG  
First 2 weeks

NAME  
DATE



$$\begin{aligned}\sin \theta &= \\ \cos \theta &= \\ \tan \theta &= \\ \theta &= \underline{\hspace{2cm}}^{\circ} \\ \theta &= \underline{\hspace{2cm}} \text{ rad}\end{aligned}$$

3. **NO CALCULATOR!**

a. T or F  $\sin 30^\circ = \sin 150^\circ$

b. T or F  $\cos 80^\circ = \cos (-80^\circ)$

c. T or F  $\tan 140^\circ = -\tan (40^\circ)$

d. T or F  $\cos 60^\circ = \cos \frac{\pi}{3}$

c. Use your answers to part b to determine the sin, cos, & tan of the other 3 angles.

4. Use your knowledge of 30-60-90 & 45-45-90 triangles to find the exact value of each:

a.  $\sin 45^\circ$  b.  $\tan 60^\circ$  c.  $\cos 120^\circ$

d.  $\tan \frac{\pi}{4}$  e.  $\sin (-30^\circ)$  f.  $\cos 90^\circ$

5. The terminal side of an angle passes through the point  $(2, -5)$ .

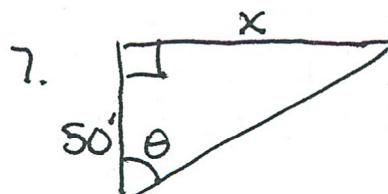
a. Sketch  $\theta \notin \theta_{\text{ref}}$

b. Find  $\sin \theta, \tan \theta, \cos \theta, \theta$ .

6. a. Sketch  $y = \sin \theta$  over  $-360^\circ \leq \theta \leq 360^\circ$ , plotting points every  $90^\circ$ .

b. Draw the horizontal line  $y = \frac{1}{2}$  on the same axes. How many times do the two graphs intersect?

c. Solve  $\sin \theta = \frac{1}{2}$  over  $-360^\circ \leq \theta \leq 360^\circ$ . Label all 4 answers on your graph.



7. a. Write an equation that relates,  $x, \theta, \& 50$ .  
 b. Solve for  $x$  in terms of  $\theta$ ,  $x(\theta)$ .  
 c. Find  $\theta(x)$ .