

Review 4.2 B

Precalculus w/ Trig

Name KEY  
 Period \_\_\_\_\_

Unit Circle, period, Def of Trig Functions, Even/Odd

1. Determine the exact values of the six trig functions of the angle  $\theta$ , given the point on the unit circle is  $\left(\frac{-40}{41}, \frac{9}{41}\right)$ .

- a)  $\sin \theta = \frac{9}{41}$       b)  $\cos \theta = \frac{-40}{41}$       c)  $\tan \theta = \frac{9}{-40}$   
 d)  $\csc \theta = \frac{41}{9}$       e)  $\sec \theta = \frac{-41}{40}$       f)  $\cot \theta = \frac{-40}{9}$

2. Evaluate the six trig functions of the real number  $t = \frac{5\pi}{4}$

- a)  $\sin t = -\frac{\sqrt{2}}{2}$       b)  $\cos t = -\frac{\sqrt{2}}{2}$       c)  $\tan t = 1$   
 d)  $\csc t = -\sqrt{2}$       e)  $\sec t = -\sqrt{2}$       f)  $\cot t = 1$

3. Evaluate the six trig functions of the real number  $t = \frac{3\pi}{2}$  POINT ON UNIT CIRCLE  
(0, -1)

- a)  $\sin t = -1$       b)  $\cos t = 0$       c)  $\tan t = \text{undefined}$   
 d)  $\csc t = -1$       e)  $\sec t = \text{undefined}$       f)  $\cot t = 0$

4. If  $\sin t = -\frac{5}{13}$ , find

- a)  $\sin(-t) = \frac{5}{13}$       b)  $\csc(-t) = \frac{13}{5}$

5. If  $\cos t = -\frac{8}{17}$ , find

- a)  $\cos(-t) = \frac{-8}{17}$       b)  $\sec(-t) = \frac{-17}{8}$

6. If  $\cos t = -\frac{15}{17}$ , find  $\cos(\pi + t) = \frac{15}{17}$

7. Evaluate  $\cos\left(-\frac{4\pi}{3}\right) = \cos\left(\frac{4\pi}{3}\right) = \left(-\frac{1}{2}\right)$

$\cos\left(-\frac{4\pi}{3} + 2\pi\right) = \cos\left(\frac{2\pi}{3}\right) = \left(-\frac{1}{2}\right)$

8. Find the point  $(x, y)$  on the unit circle that corresponds to  $\frac{5\pi}{3}$   $\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$

