Review 4.2 **Precalculus w/ Trig** Name KEY
Unit Circle, period, Def of Trig Functions, Even/Odd Period _____

1. Determine the exact values of the six trig functions of the angle θ, given the point on the unit circle is $\left(\frac{24}{25}, -\frac{7}{25}\right)$. (x, y)

a) $\sin\theta =$ $-\frac{7}{25}$ b) $\cos\theta =$ $\frac{24}{25}$ c) $\tan\theta =$ $-\frac{7}{24}$

d) $\csc\theta =$ $-\frac{25}{7}$ e) $\sec\theta =$ $\frac{25}{24}$ f) $\cot\theta =$ $-\frac{24}{7}$

2. Evaluate the six trig functions of the real number $t = \frac{11\pi}{6}$ $\left(\frac{\sqrt{3}}{2}, -\frac{1}{2}\right)$ $\frac{11\pi}{6}$

a) $\sin t =$ $-\frac{1}{2}$ b) $\cos t =$ $\frac{\sqrt{3}}{2}$ c) $\tan t =$ $-\frac{1}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$

d) $\csc t =$ -2 e) $\sec t =$ $\frac{2\sqrt{3}}{3}$ f) $\cot t =$ $-\sqrt{3}$

3. Evaluate the six trig functions of the real number $t = \pi$ π $(-1, 0)$

a) $\sin t =$ 0 b) $\cos t =$ -1 c) $\tan t =$ 0

d) $\csc t =$ undefined e) $\sec t =$ -1 f) $\cot t =$ undefined

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

a) $\sin(-t) =$ $-\frac{4}{5}$ b) $\csc(-t) =$ $-\frac{5}{4}$

5. If $\cos t = \frac{12}{13}$, find

a) $\cos(-t) =$ $\frac{12}{13}$ b) $\sec(-t) =$ $\frac{13}{12}$

6. If $\cos t = -\frac{8}{17}$, find $\cos(\pi + t) =$ $\frac{8}{17}$

7. Evaluate $\cos\left(-\frac{5\pi}{3}\right) =$ $\frac{1}{2}$ $-\frac{5\pi}{3} + 2\pi = \frac{\pi}{3}$ $\left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$

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