

**Precalculus**  
**Review 4.5 and 4.7**

Name \_\_\_\_\_

**Part I: (No calculator)** Graph 2 periods of the given function and state all of the important information (period, amplitude, etc.)

1)  $g(x) = -3\csc(3x)$

2)  $m(x) = 5\tan\frac{x}{2} + 2$

**Part II: (No Calculator)** Solve for x in the given domain.

3)  $\sin x = -\frac{1}{2} \quad \frac{\pi}{2} \leq x \leq \frac{3\pi}{2}$

4)  $\sec x = \frac{2\sqrt{3}}{3} \quad \frac{3\pi}{2} \leq x \leq 2\pi$

5)  $\tan x = \sqrt{3} \quad 0 \leq x < 2\pi \quad (\text{hint: 2 answers})$

**Part III: (Calculator) Solve for x in the given domain.**

6.  $\sec x = -1.72$   $0 \leq x \leq 2\pi$  (hint: 2 answers)

7.  $\cot x = -2.34$   $\frac{3\pi}{2} \leq x \leq 2\pi$

**Part IV: (No Calculator) Find the value of the inverse trig function. Remember, there will only be one correct answer. Answer in radians.**

8)  $\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$

9)  $\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$

10)  $\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$

11)  $\cos\left(\tan^{-1}\left(-\frac{\sqrt{3}}{3}\right)\right)$

12)  $\arccos\left(\sin\left(\frac{2\pi}{3}\right)\right)$