Pre Calculus
8.1,8.2,8.7,8.8 Test Review

Name:_____
Period: _____ Date:_____

Evaluate each expression. Give exact answers! Keep any angle measures in radians.

1. $\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)$ **2.** $\csc^{-1}\left(\sqrt{2}\right)$ **3.** $\tan^{-1}(-1)$ **4.** $\sin\left(\frac{5\pi}{6}\right)$

_____ _____ _____ _____

5. $\cos^{-1}(-4)$ **6.** $\sec^{-1}(2)$ **7.** $\sec\left(\cos^{-1}\left(\frac{1}{2}\right)\right)$ **8.** $\csc\left(\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)\right)$

_____ _____ _____ _____

9. $\sec\left(\tan^{-1}\left(\sqrt{3}\right)\right)$ **10.** $\csc\left(\cos^{-1}\left(-\frac{3}{8}\right)\right)$ **11.** $\cot\left(\cos^{-1}\left(-\frac{\sqrt{3}}{3}\right)\right)$

_____ _____ _____

12. $\csc\left(\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)\right)+\cot\left(\tan^{-1}(1)\right)$ **13.** $\sin^{-1}\left(\cos\left(\frac{3\pi}{4}\right)\right)+\cos^{-1}\left(\sin\left(-\frac{\pi}{4}\right)\right)$

_____ _____

Solve the equation. Give the general formula for <u>all</u> solutions! Show all work! Circle final answers!

14. $6\tan\theta + 13 = 19$

15. $\sin(2\theta) - \frac{\sqrt{3}}{2} = 0$

Solve the equation over the interval $0 \le \theta < 2\pi$. Give exact answers, show all work, and circle final answers!

18. $2\sin(2\theta) = -\sqrt{3}$

19. $2\cos^2\theta + 9\cos\theta - 5 = 0$

20. $\sin(2\theta) = -\cos\theta$