

TRIG REVIEW HOMEWORK No calculator except questions #14 & 20

I. EVALUATE THE FOLLOWING

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| 1. $\sin \frac{\pi}{6}$ | 2. $\cos \frac{5\pi}{6}$ | 3. $\sin \frac{8\pi}{3}$ | 4. $\tan \frac{3\pi}{4}$ |
| 5. $\arccos\left(\frac{1}{2}\right)$ | 6. $\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$ | 7. $\arctan(\sqrt{3})$ | 8. $\cos^{-1}(-1)$ |
| 9. $\tan^{-1}(1)$ | 10. $\csc^{-1}(\sqrt{2})$ | 11. $\arcsin(-1)$ | 12. $\arctan\left(\frac{\sqrt{3}}{3}\right)$ |

II. Solve on $[0, 2\pi)$

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|-----------------------------------|-------------------------------|--|
| 13. $2\sin^2 x + 3\sin x + 1 = 0$ | 14. $4\sin^2 x = 2\cos x + 1$ | 15. $\frac{\cos x \cot x}{1 - \sin x} = 3$ |
| 16. $2\sin^2 x - \sin x - 1 = 0$ | 17. $1 + \sin x = 2\cos^2 x$ | 18. $\sin^2 x - 1 = 0$ |
| 19. $\csc x + \cot x = 1$ | 20. $\sec^2 x + .5\tan x = 1$ | You Rock Trig Equations! |

III. Simplify the following to simple trig functions:

| | | | |
|------------------------------|----------------------------------|--------------------------------------|---|
| 21. $\cos x + \tan x \sin x$ | 22. $\sin^3 x + \sin x \cos^2 x$ | 23. $\frac{\csc x - \sin x}{\csc x}$ | 24. $\frac{\sin x}{\cos x} + \frac{\cos x}{1 + \sin x}$ |
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