Pre-Calculus: Inverse Compositions **Name**_____
Assignment 3

Evaluate each inverse expression for principal values only and write your final answer as an exact value. If no solution exists put "DNE"

1. $\arctan\left(-\frac{\sqrt{3}}{3}\right)$
2. $\cos\left(\cos^{-1}\left(-\frac{1}{2}\right)\right)$
3. $\sin\left(\sin^{-1}\left(\frac{3}{8}\right)\right)$
4. $\tan\left(\tan^{-1}\left(\frac{\sqrt{3}}{3}\right)\right)$
5. $\cos\left(\sin^{-1}\left(-\frac{3}{5}\right)\right)$
6. $\tan\left(\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)\right)$
7. $\sec\left(\cos^{-1}\left(\frac{2}{9}\right)\right)$
8. $\csc(\arctan(-1))$
9. $\cot\left(\arcsin\left(\frac{12}{13}\right)\right)$
10. $\sin^{-1}\left(\cos\left(\frac{\pi}{3}\right)\right)$
11. $\cos^{-1}\left(\tan\left(\frac{3\pi}{4}\right)\right)$
12. $\sin\left(\arctan\left(\frac{\sqrt{3}}{3}\right)\right)$
13. $\sin^{-1}\left(\tan\left(\frac{\pi}{4}\right)\right)$
14. $\cos^{-1}\left(\sin\left(\frac{\pi}{6}\right)\right)$
15. $\sec\left(\cos^{-1}\left(\frac{4}{5}\right)\right)$
16. $\cot(\sin^{-1}(0))$
17. $\csc\left(\sin^{-1}\left(\frac{9}{10}\right)\right)$
18. $\cos^{-1}\left(\cos\left(\frac{\pi}{2}\right)\right)$
19. $\sin^{-1}\left(\sin\left(\frac{\pi}{4}\right)\right)$
20. $\tan^{-1}\left(\tan\left(\frac{\pi}{3}\right)\right)$
21. $\cos\left(\arcsin\left(\frac{1}{2}\right)\right)$
22. $\sin\left(\arccos\left(\frac{3}{2}\right)\right)$