

4.20 Trig Inverse and Principal Values Quiz Review WS #2

Find the exact value for each expression. Use radian measures for angles. Use principal values for inverses.

1. $\text{Arcsin}(-1)$

2. $\text{Cos}^{-1}\left(-\frac{\sqrt{2}}{2}\right)$

3. $\text{Tan}^{-1}\left(-\frac{1}{\sqrt{3}}\right)$

4. $\text{Cos}^{-1}\left(\frac{\sqrt{3}}{2}\right)$

5. $\sin[\text{Tan}^{-1}(-\sqrt{3})]$

6. $\text{Arccos}\left[\sin\left(\frac{5\pi}{3}\right)\right]$

7. $\text{Sin}^{-1}\left[\tan\left(\frac{3\pi}{4}\right)\right]$

8. $\cot\left[\text{Cos}^{-1}\left(\frac{\sqrt{3}}{2}\right)\right]$

9. $\tan\left[\text{Arccos}\left(-\frac{40}{41}\right)\right]$

10. $\cos\left[\text{Arctan}\left(\frac{2x}{5}\right)\right]$

11. $\cot\left[\text{Sin}^{-1}\left(\frac{3}{x}\right)\right]$

12. $\csc[\text{Cos}^{-1}(3x)]$

Use a calculator to find two values of θ , where $0^\circ \leq \theta < 360^\circ$. Round to the nearest degree.

13. $\arcsin(-0.8121)$

14. $\cos^{-1}(-0.2211)$

15. $\tan \theta = 0.5249$

Use a calculator to find two values of θ , where $0 \leq \theta < 2\pi$. Round to the nearest thousandth of a radian.

16. $\arcsin(0.9723)$

17. $\cos^{-1}(-0.7989)$

18. $\tan \theta = -0.4451$

19) $\tan \left[\arccos \left(-\frac{2}{7} \right) \right]$

20) $\sin[\arctan(-4)]$