## Principal Values of the Inverse Trigonometric Functions

*Find each value.*

1. Arcsin (−1)

2. Arccos 1

3. Arctan (−1)

4. $\cos^{-1} \frac{1}{2}$

5. Arcsin 1

6. $\tan^{-1}\left(-\frac{\sqrt{3}}{3}\right)$

7. $\cos\left(\cos^{-1}\left(-\frac{1}{2}\right)\right)$

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

9. $\tan\left(\tan^{-1}\frac{\sqrt{3}}{3}\right)$

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

11. $\sin^{-1}\left(\sin\frac{\pi}{4}\right)$

12. $\tan^{-1}\left(\tan\frac{\pi}{3}\right)$

13. $\cos\left(\text{Arcsin}\frac{1}{2}\right)$

14. $\sin\left(\text{Arccos}\frac{\sqrt{3}}{2}\right)$

15. $\tan\left(\text{Arcsin}\frac{\sqrt{3}}{2}\right)$

16. $\tan\left(\text{Arccos}\frac{5}{13}\right)$

17. $\cos\left(\text{Arcsin}\frac{6}{10}\right)$

18. $\sin\left(\text{Arccos}\frac{3}{5}\right)$

19. $\sin\left[\cos^{-1}\left(\frac{\sqrt{2}}{2}\right)-\frac{\pi}{4}\right]$

20. $\cos\left[\sin^{-1}\left(\frac{\sqrt{2}}{2}\right)+\frac{\pi}{4}\right]$

21. $\tan\left[\frac{3\pi}{4}+\sin^{-1}\frac{\sqrt{2}}{2}\right]$