

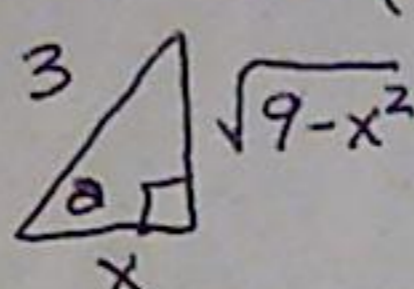
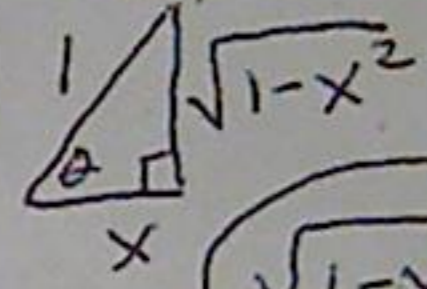
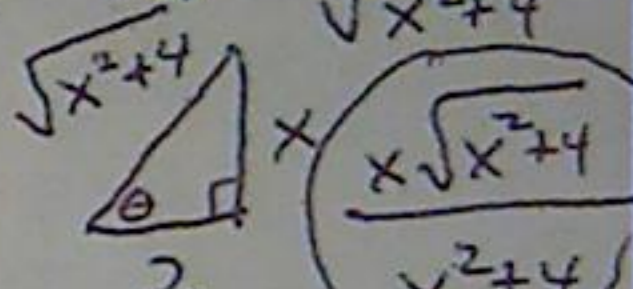
Evaluate the given expression without the aid of a calculator.

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

Find the exact value without a calculator.

- | | | |
|--|---|---|
| 21. $\cos\left(\sin^{-1}\left(\frac{1}{2}\right)\right)$
$\frac{\sqrt{3}}{2}$ | 22. $\sin\left(\cos^{-1}\left(\frac{\sqrt{2}}{2}\right)\right)$
$\frac{\sqrt{2}}{2}$ | 23. $\sin^{-1}\left(\cos\left(\frac{\pi}{3}\right)\right)$
$\frac{\pi}{6}$ |
| 24. $\cos^{-1}\left(\sin\left(\frac{\pi}{6}\right)\right)$
$\frac{\pi}{3}$ | 25. $\sin^{-1}\left(\sin\left(\frac{7\pi}{4}\right)\right)$
$-\frac{\pi}{4}$ | 26. $\arccos\left(\sin\left(\frac{\pi}{3}\right)\right)$
$\frac{\pi}{6}$ |
| 27. $\sin\left(\tan^{-1}(\sqrt{3})\right)$
$\frac{\sqrt{3}}{2}$ | 28. $\cos\left(\tan^{-1}(-1)\right)$
$\frac{\sqrt{2}}{2}$ | 29. $\tan^{-1}(\cos(\pi))$
$-\frac{\pi}{4}$ |

Find an algebraic expression equivalent to the given expression.

30. $\tan\left(\arccos\left(\frac{x}{3}\right)\right)$ 	31. $\sin\left(\arccos(x)\right)$ 	32. $\sin\left(\arctan\left(\frac{x}{2}\right)\right)$ 
---	--	---

Evaluate using your calculator to find the approximate value. Express your answer in degrees.

- | | | |
|--------------------------------------|---------------------------------------|--|
| 33. $\sin^{-1}(.8621)$ 59.55° | 34. $\tan^{-1}(.5893)$ 30.51° | 35. $\cos^{-1}(-.3218)$ 108.77° |
| 36. $\arcsin(-.6821)$ -43.01° | 37. $\arctan(-1.6283)$ -58.44° | 38. $\arccos(.2814)$ 73.66° |

Evaluate using your calculator to find the approximate value. Express your answer in radians

- | | | |
|------------------------------|---------------------------------|-----------------------------------|
| 39. $\arcsin(.2618)$ 0.265 | 40. $\cos^{-1}(-.8090)$ 2.513 | 41. $\tan^{-1}(-1.7321)$ -1.047 |
|------------------------------|---------------------------------|-----------------------------------|