

Evaluate **WITHOUT** the calculator.

1. $\sin \frac{\pi}{3}$ $\frac{\sqrt{3}}{2}$ 2. $\tan 270^\circ$ und 3. $\sec 45^\circ$ $\sqrt{2}$ 4. $\cos \frac{\pi}{2}$ 0 5. $\cot \frac{\pi}{6}$ $\sqrt{3}$

6. $\csc(-\frac{4}{3}\pi)$ $\theta' = \frac{\pi}{3}$ $\frac{2\sqrt{3}}{3}$ 7. $\cos 300^\circ$ $\theta' = 60^\circ$ $\frac{1}{2}$ 8. $\tan \frac{5}{3}\pi$ $\theta' = \frac{\pi}{3}$ $-\sqrt{3}$ 9. $\sin \frac{7}{6}\pi$ $\theta' = \frac{\pi}{6}$ $-\frac{1}{2}$ 10. $\cos 135^\circ$ $\theta' = 45^\circ$ $-\frac{\sqrt{2}}{2}$

Evaluate using the calculator. Round to 3 decimal places.

11. $\tan 100^\circ$ -5.671 12. $\cos \frac{11}{8}\pi$ -.383 13. $\csc 310^\circ$ -1.305 14. $\sin 6$ -.279 15. $\cot \frac{4}{5}\pi$ -1.376

16. $\sec 22^\circ$ 1.079 17. $\csc 15$ 1.538 18. $\cot 350^\circ$ -5.671 19. $\sin 10^\circ$.174 20. $\tan 2.5$ -.747

Solve for θ **without** the calculator, if $0^\circ \leq \theta \leq 90^\circ$.

21. $\cos \theta = \frac{\sqrt{3}}{2}$ $\theta = 30^\circ$ 22. $\cot \theta = \sqrt{3}$ $\tan \theta = \frac{1}{\sqrt{3}}$ $\theta = 30^\circ$ 23. $\csc \theta = \sqrt{2}$ $\sin \theta = \frac{1}{\sqrt{2}}$ $\theta = 45^\circ$ 24. $\sin \theta = \frac{1}{2}$ $\theta = 30^\circ$

Solve for θ **without** the calculator, if $0 \leq \theta \leq \frac{\pi}{2}$.

25. $\tan \theta = 1$ $\theta = \frac{\pi}{4}$ 26. $\sec \theta = 2$ $\cos \theta = \frac{1}{2}$ $\theta = \frac{\pi}{3}$ 27. $\sin \theta = 0$ $\theta = 0$ 28. $\csc \theta = \frac{2\sqrt{3}}{3}$ $\sin \theta = \frac{\sqrt{3}}{2}$ $\theta = \frac{\pi}{3}$

Solve for θ **using** the calculator to the nearest thousandth, if $0^\circ \leq \theta \leq 90^\circ$

29. $\tan \theta = 1.2$ $\theta = 50.194^\circ$ 30. $\sec \theta = 3.005$ $\cos \theta = \frac{1}{3.005}$ $\theta = 70.562^\circ$

Solve for θ **using** the calculator to the nearest thousandth, if $0 \leq \theta \leq \frac{\pi}{2}$.

31. $\sin \theta = \frac{1}{8}$ $\theta = .125$ 32. $\cot \theta = 4.355$ $\tan \theta = \frac{1}{4.355}$ $\theta = .226$

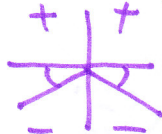
Solve for θ without the calculator, if $0^\circ \leq \theta < 360^\circ$.

33. $\cos\theta = \frac{1}{2}$ $\theta' = 60^\circ$



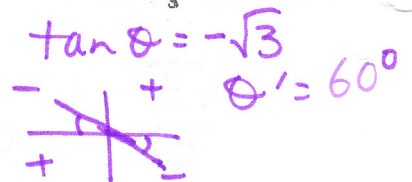
$\theta = 60^\circ, 300^\circ$

34. $\sin\theta = -\frac{\sqrt{2}}{2}$ $\theta' = 45^\circ$



$\theta = 225^\circ, 315^\circ$

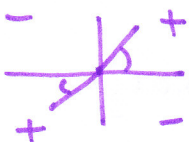
35. $\cot\theta = -\frac{\sqrt{3}}{3}$



$\theta = 120^\circ, 300^\circ$

Solve for θ without the calculator, if $0 \leq \theta < 2\pi$.

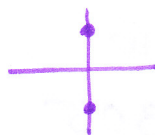
36. $\tan\theta = 1$ $\theta' = \frac{\pi}{4}$



$\theta = \frac{\pi}{4}, \frac{5\pi}{4}$

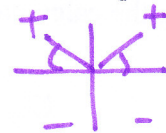
37. $\sec\theta = \text{undefined}$

$\cos\theta = 0$



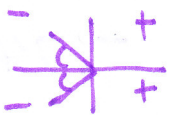
$\theta = \frac{\pi}{2}, \frac{3\pi}{2}$

38. $\sin\theta = \frac{\sqrt{3}}{2}$ $\theta' = \frac{\pi}{3}$



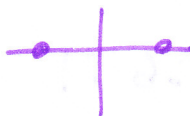
$\theta = \frac{\pi}{3}, \frac{2\pi}{3}$

39. $\cos\theta = -\frac{\sqrt{3}}{2}$ $\theta' = \frac{\pi}{6}$



$\theta = \frac{5\pi}{6}, \frac{7\pi}{6}$

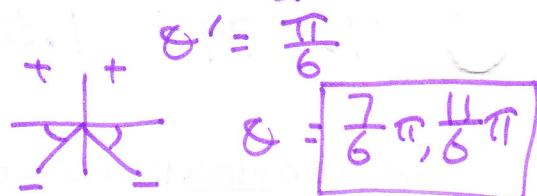
40. $\tan\theta = 0$



$\theta = 0, \pi$

41. $\csc\theta = -2$

$\sin\theta = -\frac{1}{2}$

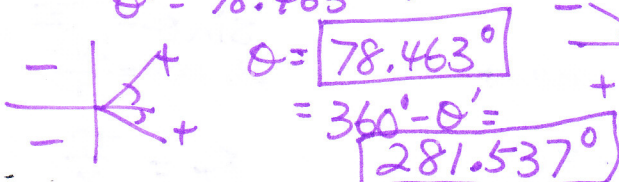


$\theta = \frac{7\pi}{6}, \frac{11\pi}{6}$

Solve for θ using the calculator to the nearest thousandth, if $0^\circ \leq \theta < 360^\circ$. * cal in Degree

42. $\cos\theta = \frac{1}{5}$

$\theta' = \cos^{-1}(1/5)$
 $\theta' = 78.463^\circ \rightarrow \text{sto}$

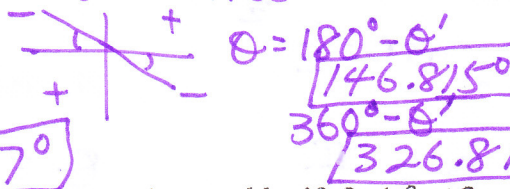


$\theta = 78.463^\circ$

$= 360^\circ - \theta'$
 281.537°

43. $\tan\theta = -0.654$

$\theta' = \tan^{-1}(.654)$
 $\theta' = 33.185^\circ \rightarrow \text{sto}$

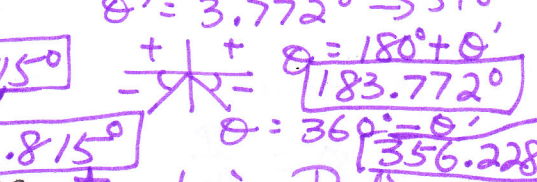


$\theta = 180^\circ - \theta'$
 146.815°

$360^\circ - \theta'$
 326.815°

44. $\csc\theta = -15.2$

$\sin\theta = -\frac{1}{15.2}$
 $\theta' = \sin^{-1}(1/15.2)$
 $\theta' = 3.772^\circ \rightarrow \text{sto}$



$\theta = 180^\circ + \theta'$
 183.772°

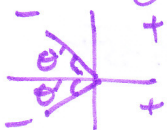
$\theta = 360^\circ - \theta'$
 356.228°

Solve for θ using the calculator to the nearest thousandth, if $0 \leq \theta < 2\pi$. * cal. in Radian

45. $\sec\theta = -\frac{7}{2}$

$\cos\theta = -\frac{2}{7}$

$\theta' = \cos^{-1}(2/7)$
 $\theta' = 1.281 \rightarrow \text{sto}$



$\theta = \pi - \theta' = 1.861$
 $\pi + \theta' = 4.423$

46. $\sin\theta = .035$

$\theta' = \sin^{-1}(.035)$
 $\theta' = .035 \rightarrow \text{sto}$

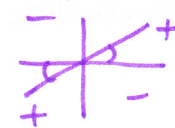


$\theta = .035$
 $\pi - \theta$
 3.107

47. $\cot\theta = 5$

$\tan\theta = \frac{1}{5}$

$\theta' = \tan^{-1}(1/5)$
 $\theta' = .197 \rightarrow \text{sto}$



$\theta = .197$
 $= \pi + \theta'$
 3.339