

PRE-CALCULUS INVERSE WORKSHEET #6

Evaluate each of the following. Give answers in both forms, angles in degrees and in radians.

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|------------------------------------|----------------------------------|-----------------------------------|-------------------------------------|------------------------------------|
| 1. $\arcsin \frac{1}{2}$ | 2. $\arccos \frac{-\sqrt{3}}{2}$ | 3. $\tan^{-1} 1$ | 4. $\arcsin \frac{-1}{2}$ | 5. $\sin^{-1} \frac{-\sqrt{3}}{2}$ |
| 6. $\tan^{-1} -1$ | 7. $\tan^{-1} \sqrt{3}$ | 8. $\sin^{-1} \frac{\sqrt{3}}{2}$ | 9. $\sec^{-1} 2$ | 10. $\tan^{-1} -\sqrt{3}$ |
| 11. $\tan^{-1} \frac{\sqrt{3}}{3}$ | 12. $\sec^{-1} -2$ | 13. $\arccos \frac{\sqrt{3}}{2}$ | 14. $\tan^{-1} \frac{-\sqrt{3}}{3}$ | 15. $\cos^{-1} 0$ |

Evaluate each of the following.

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|----------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|
| 16. $\cos \frac{7\rho}{6}$ | 17. $\sin -300^\circ$ | 18. $\cos 225^\circ$ | 19. $\tan \frac{5\rho}{3}$ | 20. $\cos -225^\circ$ |
| 21. $\tan -315^\circ$ | 22. $\csc \frac{11\rho}{6}$ | 23. $\sec \frac{2\rho}{3}$ | 24. $\csc \frac{5\rho}{6}$ | 25. $\sin \frac{3\rho}{4}$ |
| 26. $\sin \frac{5\rho}{6}$ | 27. $\sec -225^\circ$ | 28. $\tan \frac{-\pi}{4}$ | 29. $\sec \frac{11\rho}{6}$ | 30. $\cot \frac{4\rho}{3}$ |

Answers:

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|--------------------------------|---------------------------------|---------------------------------|---------------------------------|----------------------------------|--------------------------------|----------------------------------|--------|--------|-------|
| 1. $30^\circ, \frac{\rho}{6}$ | 2. $150^\circ, \frac{5\rho}{6}$ | 3. $45^\circ, \frac{\rho}{4}$ | 4. $-30^\circ, -\frac{\rho}{6}$ | 5. $-60^\circ, -\frac{\pi}{3}$ | 6. $-45^\circ, -\frac{\pi}{4}$ | 7. $60^\circ, \frac{\rho}{3}$ | | | |
| 8. $60^\circ, \frac{\rho}{3}$ | 9. $60^\circ, \frac{\rho}{3}$ | 10. $-60^\circ, -\frac{\pi}{3}$ | 11. $30^\circ, \frac{\rho}{6}$ | 12. $120^\circ, \frac{2\rho}{3}$ | 13. $30^\circ, \frac{\rho}{6}$ | 14. $-30^\circ, -\frac{\rho}{6}$ | | | |
| 15. $90^\circ, \frac{\rho}{2}$ | 16. $-\frac{\sqrt{3}}{2}$ | 17. $\frac{\sqrt{3}}{2}$ | 18. $-\frac{\sqrt{2}}{2}$ | 19. $-\sqrt{3}$ | 20. $-\frac{\sqrt{2}}{2}$ | 21. 1 | 22. -2 | 23. -2 | 24. 2 |
| 25. $\frac{\sqrt{2}}{2}$ | 26. $\frac{1}{2}$ | 27. $-\sqrt{2}$ | 28. -1 | 29. $\frac{2\sqrt{3}}{3}$ | 30. $\frac{\sqrt{3}}{3}$ | | | | |