

More Unit Circle

“I can evaluate all 6 trigonometric ratios”

I. Reciprocal Identities

A. $\sin \theta =$ _____ B. $\csc \theta =$ _____

C. $\cos \theta =$ _____ D. $\sec \theta =$ _____

E. $\tan \theta =$ _____ F. $\cot \theta =$ _____

II. How to Evaluate

A. Draw the rotation and identify the _____ angle or quadrant.

B. Determine the basic ratio. If it is a reciprocal, _____ the fraction.

C. Determine the sign by using, _____

III. Model Problems

GP	OYO
Evaluate $\sin 300^\circ$	Evaluate $\csc 300^\circ$
Evaluate $\cot 270^\circ$	Evaluate $\cos 180^\circ$
Evaluate $\sec 30^\circ$	Evaluate $\sec 300^\circ$
Evaluate $\csc 0^\circ$	Evaluate $\cot(-135^\circ)$
Solve $\sin 120^\circ = \frac{r}{18}$	Solve $\cos 45^\circ = \frac{18}{x}$

PAP Geometry: Unit Circle Worksheet #2**Give the Exact Value of each without using a calculator.**

- | | | |
|------------------------|-----------------------|------------------------|
| 1. $\cos 60^\circ$ | 2. $\sin 210^\circ$ | 3. $\tan 135^\circ$ |
| 4. $\csc 90^\circ$ | 5. $\sin(-330^\circ)$ | 6. $\sec(-45^\circ)$ |
| 7. $\sin 330^\circ$ | 8. $\sec(-45^\circ)$ | 9. $\cot(-150^\circ)$ |
| 10. $\cot 270^\circ$ | 11. $\sec 240^\circ$ | 12. $\cos(-240^\circ)$ |
| 13. $\cot 30^\circ$ | 14. $\cos 135^\circ$ | 15. $\sin 225^\circ$ |
| 16. $\tan 390^\circ$ | 17. $\cos(-60^\circ)$ | 18. $\tan 300^\circ$ |
| 19. $\sec 120^\circ$ | 20. $\tan 90^\circ$ | 21. $\sin(-270^\circ)$ |
| 22. $\csc(-135^\circ)$ | 23. $\sec 330^\circ$ | 24. $\cot(-180^\circ)$ |
| 25. $\csc(-225^\circ)$ | 26. $\cot 0^\circ$ | 27. $\csc 495^\circ$ |
| 28. $\csc 150^\circ$ | 29. $\cos 0^\circ$ | 30. $\sec 180^\circ$ |
| 31. $\sin(-180^\circ)$ | 32. $\tan 90^\circ$ | 33. $\tan(-315^\circ)$ |
| 34. $\csc 660^\circ$ | 35. $\cot 330^\circ$ | 36. $\sec 120^\circ$ |

Solve

37. $\cos 240^\circ = \frac{135}{s}$

38. $\sin 315^\circ = \frac{x}{12}$