

Finding Trigonometric Functions of any Angle
Module 3, Unit 6, Lesson 5

Find the value of the trigonometric function. Draw and label a **reference triangle**.

1. $\sin 135^\circ =$

2. $\cos 240^\circ =$

3. $\sec 330^\circ =$

4. $\tan 225^\circ =$

5. $\csc 30^\circ =$

6. $\cot 120^\circ =$

7. $\cos 1140^\circ =$

8. $\tan -540^\circ =$

9. $\csc -810^\circ =$

10. $\sec 960^\circ =$

Find the value of the trigonometric function. Draw and label a **reference triangle**.

$$11. \sin \frac{\pi}{6} =$$

$$12. \tan \pi =$$

$$13. \cos \frac{5\pi}{6} =$$

$$14. \cos \frac{2\pi}{3} =$$

$$15. \csc \frac{7\pi}{6} =$$

$$16. \sec \frac{11\pi}{6} =$$

$$17. \sin \left(-\frac{\pi}{3} \right) =$$

$$18. \csc \left(-\frac{4\pi}{3} \right) =$$

$$19. \sec \frac{5\pi}{3} =$$

$$20. \cos \frac{\pi}{2} =$$

$$21. \sec \left(-\frac{3\pi}{2} \right) =$$

$$22. \sin \pi =$$

23. $\cos\frac{9\pi}{4} =$

24. $\sin\left(-\frac{9\pi}{4}\right)$

25. $\cot\left(-\frac{5\pi}{4}\right)$

Answers

1. $\frac{\sqrt{2}}{2}$

2. $-\frac{1}{2}$

3. $\frac{2\sqrt{3}}{3}$

4. 1

5. 2

6. $-\frac{\sqrt{3}}{3}$

7. $\frac{1}{2}$

8. 0

9. -1

10. -2

11. $\frac{1}{2}$

12. 0

13. $-\frac{\sqrt{3}}{2}$

14. $-\frac{1}{2}$

15. -2

16. $\frac{2\sqrt{3}}{3}$

17. $-\frac{\sqrt{3}}{2}$

18. $\frac{2\sqrt{3}}{3}$

19. 2

20. 0

21. Undefined

22. 0

23. $\frac{\sqrt{2}}{2}$

24. $-\frac{\sqrt{2}}{2}$

25. -1