

Find the exact value of each of the following in simplest radical form.

1.  $\cos 45^\circ$   $\frac{\sqrt{2}}{2}$

2.  $\cos 135^\circ$   $-\frac{\sqrt{2}}{2}$

3.  $\sin 210^\circ$   $-\frac{1}{2}$

4.  $\cos 150^\circ$   $-\frac{\sqrt{3}}{2}$

5.  $\sin -45^\circ$   $-\frac{\sqrt{2}}{2}$

6.  $\cos 315^\circ$   $\frac{\sqrt{2}}{2}$

7.  $\cos 225^\circ$   $-\frac{\sqrt{2}}{2}$

8.  $\sin -225^\circ$   $\frac{\sqrt{2}}{2}$

9.  $\sin 150^\circ$   $\frac{1}{2}$

10.  $\cos -240^\circ$   $-\frac{1}{2}$

11.  $\sin -135^\circ$   $-\frac{\sqrt{2}}{2}$

12.  $\cos -30^\circ$   $\frac{\sqrt{3}}{2}$

13.  $\cos 210^\circ$   $-\frac{\sqrt{3}}{2}$

14.  $\cos 90^\circ$   $0$

15.  $\sin -120^\circ$   $-\frac{\sqrt{3}}{2}$

16.  $\sin -315^\circ$   $\frac{\sqrt{2}}{2}$

17.  $\cos \frac{\pi}{6}$   $\frac{\sqrt{3}}{2}$

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

19.  $\cos \frac{2\pi}{3}$   $-\frac{1}{2}$

20.  $\sin \frac{3\pi}{4}$   $\frac{\sqrt{2}}{2}$

21.  $\cos \frac{\pi}{4}$   $\frac{\sqrt{2}}{2}$

22.  $\sin -\frac{\pi}{4}$   $-\frac{\sqrt{2}}{2}$

23.  $\sin \frac{5\pi}{3}$   $-\frac{\sqrt{3}}{2}$

24.  $\cos -\frac{7\pi}{6}$   $-\frac{\sqrt{3}}{2}$

25.  $\cos 2\pi$   $1$

26.  $\sin \frac{11\pi}{6}$   $-\frac{1}{2}$

27.  $\cos -\frac{5\pi}{6}$   $-\frac{\sqrt{3}}{2}$

28.  $\cos \frac{3\pi}{4}$   $-\frac{\sqrt{2}}{2}$

29.  $\cos -\frac{\pi}{3}$   $\frac{1}{2}$

30.  $\sin \pi$   $0$

31.  $\sin \frac{5\pi}{4}$   $-\frac{\sqrt{2}}{2}$

32.  $\sin -\frac{\pi}{6}$   $-\frac{1}{2}$

33.  $\cos 120^\circ$   $-\frac{1}{2}$

34.  $\sec 120^\circ$   $-2$

35.  $\sin 120^\circ$   $\frac{\sqrt{3}}{2}$

36.  $\tan 120^\circ$   $-\sqrt{3}$

37.  $\sin 225^\circ$   $-\frac{\sqrt{2}}{2}$

38.  $\csc 225^\circ$   $-\sqrt{2}$

39.  $\tan 225^\circ$   $1$

40.  $\sec 225^\circ$   $-\sqrt{2}$

41.  $\csc 90^\circ$   $1$

42.  $\sec 180^\circ$   $-1$

43.  $\tan 240^\circ$   $\sqrt{3}$

44.  $\cot 0^\circ$   $\infty$

45.  $\csc 150^\circ$   $2$

46.  $\csc 0^\circ$   $\infty$

47.  $\tan 315^\circ$   $-1$

48.  $\sec 315^\circ$   $\sqrt{2}$

49.  $\csc \pi$   $\infty$

50.  $\tan \frac{2\pi}{3}$   $-\sqrt{3}$

51.  $\cot \frac{\pi}{2}$   $0$

52.  $\sec \frac{5\pi}{6}$   $-\frac{2\sqrt{3}}{3}$

53.  $\tan \frac{\pi}{2}$   $\infty$

54.  $\cot \frac{7\pi}{4}$   $-1$

55.  $\sec -3\pi$   $-1$

56.  $\csc \frac{7\pi}{6}$   $-2$