

PreCalculus  
Unit Circle Practice Answers

Find the exact value of each below. Rationalize any denominators if possible.

1)  $\sin \frac{3\pi}{4} = \frac{\sqrt{2}}{2}$

11)  $\sec(-4\pi) = 1$

2)  $\sec \frac{3\pi}{2} = \text{undef.}$

12)  $\cos \frac{2\pi}{3} = -\frac{1}{2}$

3)  $\cos \frac{5\pi}{3} = \frac{1}{2}$

13)  $\tan\left(-\frac{11\pi}{4}\right) = 1$

4)  $\cot \frac{7\pi}{3} = \frac{\sqrt{3}}{3}$

14)  $\sin \frac{4\pi}{3} = -\frac{\sqrt{3}}{2}$

5)  $\sin\left(-\frac{37\pi}{6}\right) = -\frac{1}{2}$

15)  $\tan \frac{5\pi}{6} = -\frac{\sqrt{3}}{3}$

6)  $\sec\left(\frac{3\pi}{4}\right) = -\sqrt{2}$

16)  $\cot \frac{3\pi}{2} = 0$

7)  $\cos(-3\pi) = -1$

17)  $\csc \frac{11\pi}{6} = -2$

8)  $\csc \frac{29\pi}{6} = 2$

18)  $\sin(7\pi) = 0$

9)  $\cos \frac{5\pi}{6} = -\frac{\sqrt{3}}{2}$

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

10)  $\tan\left(\frac{5\pi}{3}\right) = -\sqrt{3}$

20)  $\cot\left(-\frac{5\pi}{4}\right) = -1$