

1. (a) $\sin 0 = 0$ (b) $\cos 0 = 1$
3. (a) $\sin(-\pi) = 0$ (b) $\cos(-\pi) = -1$
5. (a) $\sin \frac{\pi}{2} = 1$ (b) $\sin \frac{3\pi}{2} = -1$
7. (a) $\cos \frac{\pi}{2} = 0$ (b) $\cos \frac{5\pi}{2} = 0$
9. (a) $\cos \frac{7\pi}{3} = \frac{1}{2}$ (b) $\sec \frac{7\pi}{3} = 2$
11. (a) $\cos \frac{\pi}{3} = \frac{1}{2}$ (b) $\cos(-\frac{\pi}{3}) = \frac{1}{2}$
13. (a) $\tan \frac{\pi}{6} = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$ (b) $\tan(-\frac{\pi}{6}) = -\frac{1}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$
15. (a) $\sec \frac{11\pi}{3} = \sec \frac{5\pi}{3} = 2$ (b) $\csc \frac{11\pi}{3} = \csc \frac{5\pi}{3} = -\frac{2}{\sqrt{3}} = -\frac{2\sqrt{3}}{3}$
17. (a) $\sin \frac{9\pi}{4} = \sin \frac{\pi}{4} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$ (b) $\csc \frac{9\pi}{4} = \csc \frac{\pi}{4} = \sqrt{2}$
19. (a) $\tan(-\frac{\pi}{4}) = -1$ (b) $\cot(-\frac{\pi}{4}) = -1$
21. $t = 0 \Rightarrow \sin t = 0, \cos t = 1, \tan t = 0, \sec t = 1, \csc t$ and $\cot t$ are undefined.
23. $t = \pi \Rightarrow \sin t = 0, \cos t = -1, \tan t = 0, \sec t = -1, \csc t$ and $\cot t$ are undefined.