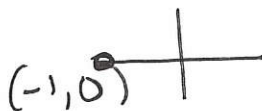


Find the exact value of each. DO NOT USE A CALCULATOR!

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

2.  $\tan 180^\circ = 0$



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

4.  $\cot 225^\circ = 1$



5.  $\csc -60^\circ = \frac{-2\sqrt{3}}{3}$

6.  $\cos -\frac{\pi}{2} = 0$

$\frac{1}{\sin} = \frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$  neg



7.  $\sec \frac{7\pi}{4} = \sqrt{2}$

8.  $\sin \frac{\pi}{6} = \frac{1}{2}$

$\frac{1}{\cos} = \frac{2}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = 2\sqrt{2}$   $\frac{2}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = 2\sqrt{2}$

9.  $\csc 240^\circ = \frac{-2\sqrt{3}}{3}$   
 $\frac{1}{\sin} = \frac{2}{\sqrt{3}}$   
 $240 \div 60 = 4\pi/3 \rightarrow Q3$  neg

8.  $\cot \frac{10\pi}{3} = \frac{\sqrt{3}}{3}$



11.  $\sin \frac{11\pi}{6} + \cos \frac{7\pi}{4} = \frac{-1 + \sqrt{2}}{2}$

12.  $\tan \frac{4\pi}{3} + \sin \pi = \sqrt{3}$

Q4 neg + Q4 pos  
 $-\frac{1}{2} + \frac{\sqrt{2}}{2}$

$\sqrt{3} + 0$



13.  $\sec 210^\circ \tan -135^\circ = \frac{2\sqrt{3}}{3}$   
 ↖ Q3

14.  $5\cot \frac{4\pi}{3} + \sec \pi = \frac{5\sqrt{3}-3}{3}$   $(-1, 0)$

$\frac{7\pi}{6}$   
 $\frac{1}{\cos}$

$5\left(\frac{\sqrt{3}}{3}\right) + -1$

Q3 neg  $-\frac{2}{\sqrt{3}} \cdot \frac{1}{1} = \frac{2\sqrt{3}}{3}$

$\frac{5\sqrt{3}}{3} - \frac{3}{3} = \frac{5\sqrt{3}-3}{3}$