

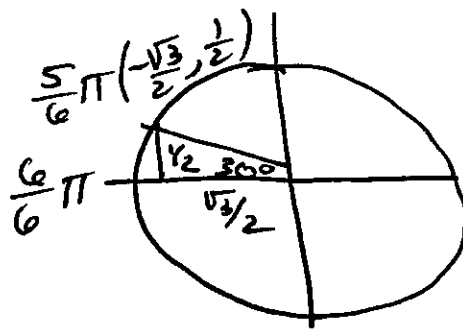
Practice Problems

Evaluate.

① $\sec\left(\frac{5}{6}\pi\right)$

$$= \frac{1}{\cos\frac{5}{6}\pi}$$

$$= \frac{1}{(-\sqrt{3}/2)} = -\frac{2}{\sqrt{3}} = \boxed{-\frac{2\sqrt{3}}{3}}$$

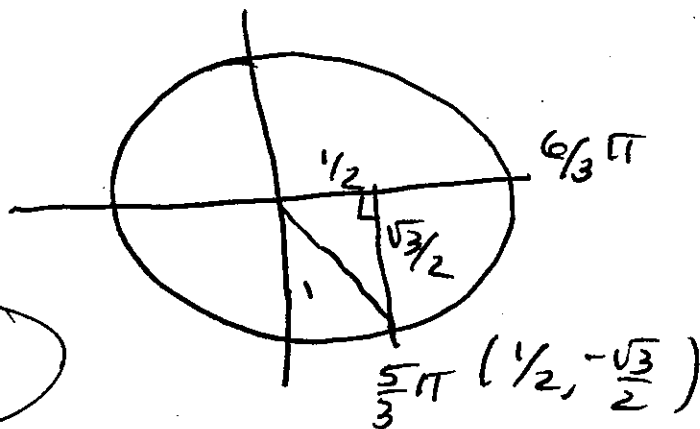


② $\tan\left(\frac{5}{3}\pi\right)$

$$= \frac{y}{x}$$

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

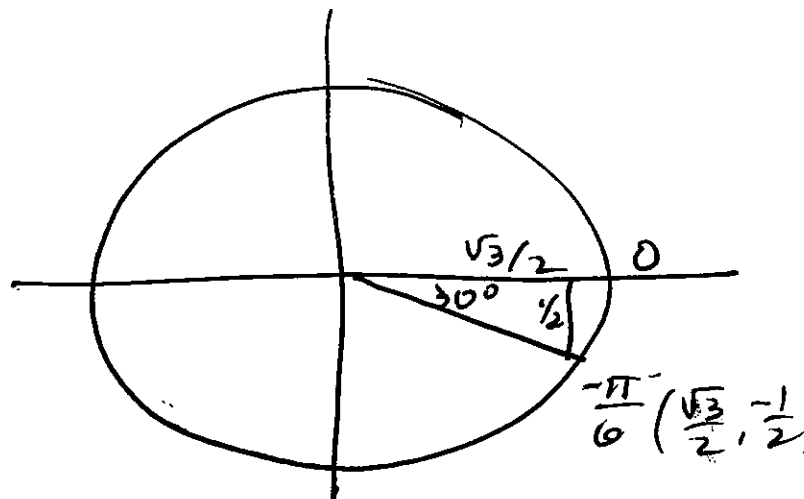
$$= \boxed{-\sqrt{3}}$$



③ $\csc\left(-\frac{\pi}{6}\right)$

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

$$= \frac{1}{(-1/2)} = \boxed{-2}$$



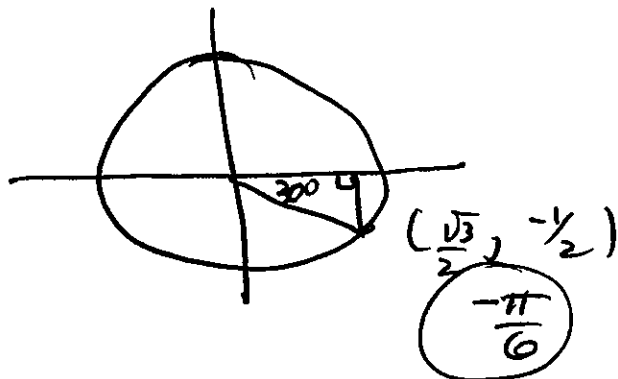
$$\textcircled{4} \quad \sin^{-1}\left(-\frac{1}{2}\right)$$

$$\sin^{-1}\left(-\frac{1}{2}\right) = \theta$$

$$\sin \theta = -\frac{1}{2}$$

$$\theta = \frac{-\pi}{6}$$

$$-\frac{\pi}{2} \leq \theta < \frac{\pi}{2}$$

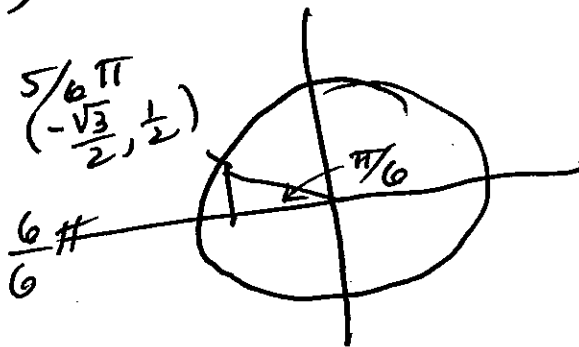


$$\textcircled{5} \quad \cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)$$

$$\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right) = \theta, \quad 0 \leq \theta < \pi$$

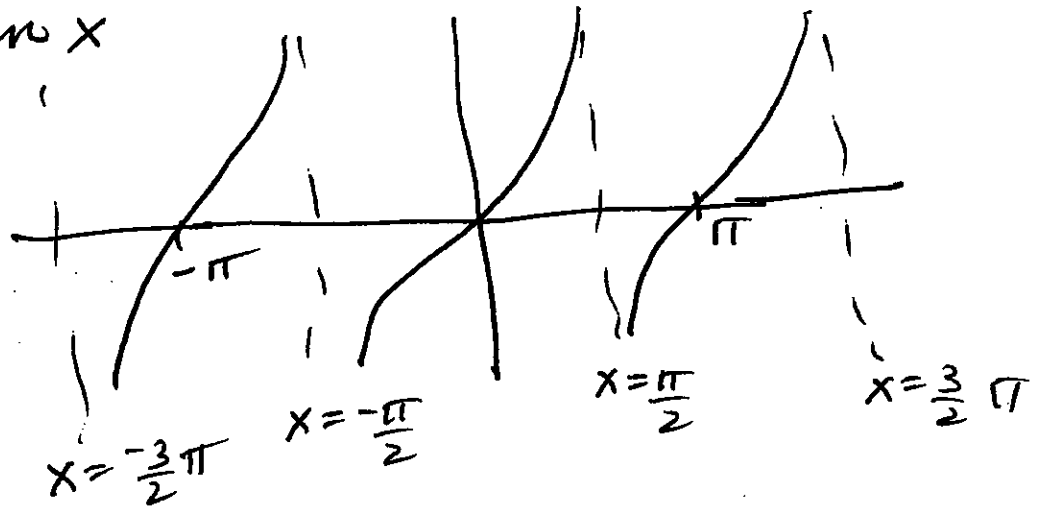
$$\cos \theta = -\frac{\sqrt{3}}{2}$$

$$\theta = \frac{5\pi}{6}$$



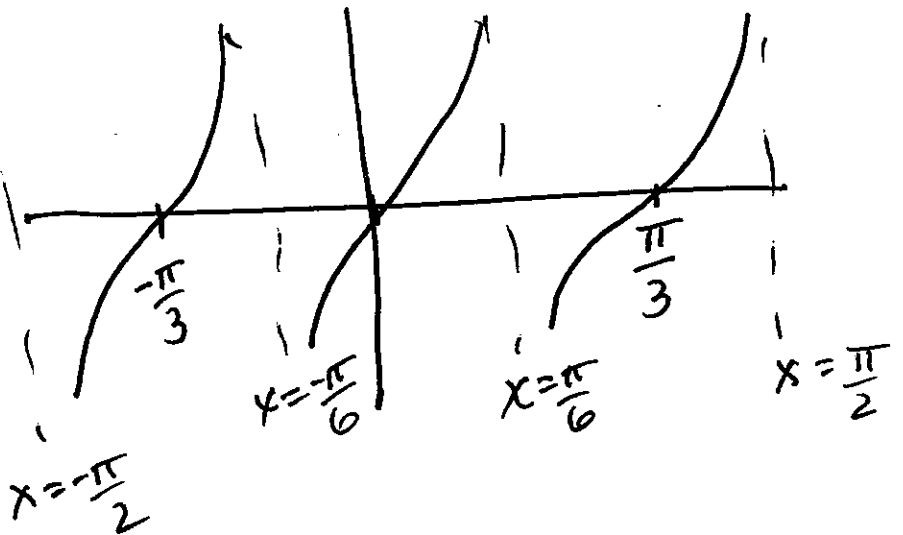
Sketch the graph.

⑥ $y = \tan x$



⑦ $y = \tan 3x$

$P = \frac{\pi}{3}$



⑧ $y = \csc x = \frac{1}{\sin x}$

