

Express each of the following functions as a function of an angle θ so that $0 \leq \theta \leq \frac{\pi}{4}$ (or $0 \leq \theta \leq 45^\circ$) as appropriate.

$$\tan \frac{37\pi}{12} =$$

$$\cot(-352^\circ) =$$

$$\cos \frac{49\pi}{6} =$$

$$\sec\left(-\frac{4\pi}{9}\right) =$$

$$\cos(682^\circ) =$$

$$\sin \frac{47\pi}{8} =$$

$$\sec \frac{31\pi}{12} =$$

$$\csc(-253^\circ) =$$

$$\cos \frac{43\pi}{6} =$$

$$\sin\left(-\frac{7\pi}{9}\right) =$$

$$\cot(812^\circ) =$$

$$\tan \frac{73\pi}{8} =$$

$$\cos \frac{59\pi}{6} =$$

$$\csc \frac{7\pi}{11} =$$

$$\tan(-529^\circ) =$$

$$\sec\left(-\frac{5\pi}{9}\right) =$$

$$\sin \frac{75\pi}{4} =$$

ANSWERS

$$\tan \frac{\pi}{12}$$

$$\cot 8^\circ$$

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

$$\csc \frac{\pi}{18}$$

$$\cos 38^\circ$$

$$-\sin \frac{\pi}{8}$$

$$-\csc \frac{\pi}{12}$$

$$\sec 17^\circ$$

$$-\cos \frac{\pi}{6}$$

$$-\sin \frac{2\pi}{9}$$

$$-\tan 2^\circ$$

$$\tan \frac{\pi}{8}$$

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

$$\sec \frac{3\pi}{22}$$

$$\tan 11^\circ$$

$$-\csc \frac{\pi}{18}$$

$$\sin \frac{\pi}{4}$$