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Given $\cos \frac{3\pi}{11} \doteq 0.6549$

find $\sin \frac{17\pi}{22}$, $\frac{17\pi}{22} \doteq 139^\circ$

$\frac{17\pi}{22}$ is in quadrant #2, therefore use a

co-function involving $(\frac{\pi}{2} + \theta)$

so, $\frac{17\pi}{22} = \frac{\pi}{2} + \theta$

$$\frac{17\pi}{22} - \frac{\pi}{2} = \theta$$

$$\frac{17\pi}{22} - \frac{11\pi}{22} = \theta$$

$$\frac{6\pi}{22} = \theta$$

$$\frac{3\pi}{11} = \theta$$

so, $\sin\left(\frac{17\pi}{22}\right) = \sin\left(\frac{\pi}{2} + \frac{3\pi}{11}\right)$

$$\sin\left(\frac{\pi}{2} + \frac{3\pi}{11}\right) = \cos \frac{3\pi}{11}$$

$$\sin\left(\frac{17\pi}{22}\right) \doteq 0.6549$$

P.g 226 #11

Given $\csc a = \sec 1.45$, and
'a' lies in 1st quadrant, find a.

- b/c 'a' lies in the 1st quadrant, \therefore use a co-fnc identity involving $(\frac{\pi}{2} - \theta)$.

$$\csc a = \sec\left(\frac{\pi}{2} - a\right)$$

$$\csc a = \sec 1.45.$$

$$\therefore \left(\frac{\pi}{2} - a\right) = 1.45$$

$$-a = 1.45 - \frac{\pi}{2}$$

$$-a = -0.12$$

$$a = 0.12.$$