J11 Exercises pps 49-50

[1] $\theta = 51.4286$

[2.1] $\frac{1}{2}$ [2.2] $-\frac{1}{2}$ [2.3] 0 [2.4] $\frac{\sqrt{3}}{2}$ [2.5] $-\sqrt{3}$

[2.6] $-\frac{\sqrt{3}}{2}$

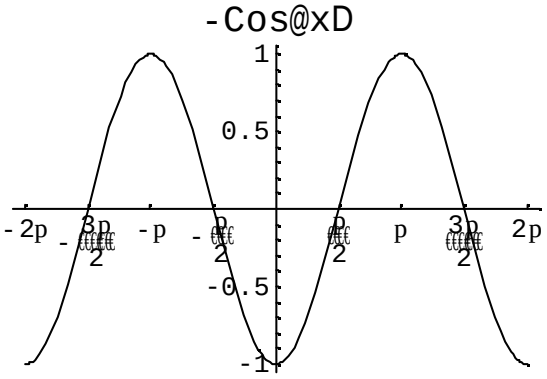
[3.1] 0 [3.2] $\frac{2}{\cos\theta}$ or $2\sec\theta$

[4] Drawing helps. $\tan\theta = \frac{4}{3} = \frac{opp}{adj}$ " 3-4-5 triangle " $\sin\theta = \frac{4}{5}$, $\cos\theta = \frac{3}{5}$. θ in Quad III,

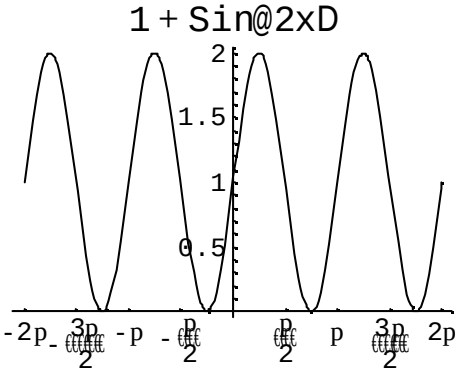
$$\therefore \sin\theta = -\frac{4}{5}, \cos\theta = -\frac{3}{5}$$

[5] $\sin\theta = \frac{\sqrt{5}}{13}$, $\tan(-\theta) = -\tan\theta = -\frac{\sqrt{5}}{12}$

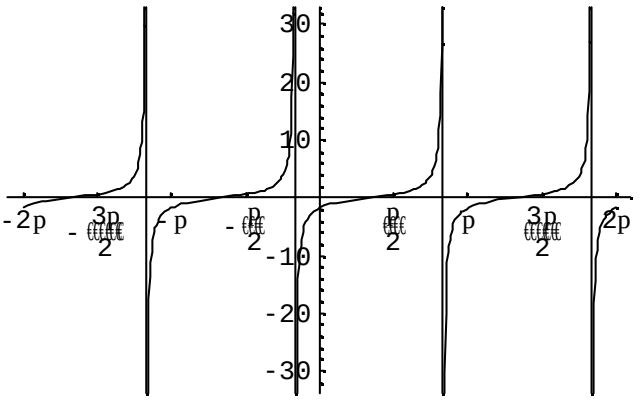
[6.1] $T = 2\pi$



[6.2] $T = \pi$



[6.3] $T = \pi$



[7.1] $\frac{4\pi}{3} \le \frac{5\pi}{3}$ [7.2] π [7.3] $\frac{5\pi}{6} \le \frac{7\pi}{6}$

[8.1] $\theta \in [0, \frac{5\pi}{6}] \cup [\frac{7\pi}{6}, 2\pi]$ can also write $0 \le \theta < \frac{5\pi}{6}$ or $\frac{7\pi}{6} < \theta < 2\pi$

[8.2] $\theta \in [0, \frac{\pi}{3}] \cup [\pi, \frac{4\pi}{3}]$