

Advanced Math

pg 451

- 1) $\frac{3\pi}{4}, -\frac{5\pi}{4}$ 5) 135.28° 9) $135^\circ 16' 12''$ 13) 128.57° 17) 8.3776
 2) $\frac{20\pi}{9}, -\frac{16\pi}{9}$ 6) -231.01° 10) $25^\circ 6'$ 14) -108° 18) -0.2890
 3) $250^\circ, -470^\circ$ 7) 5.38° 11) $-85^\circ 9'$ 15) -200.54° 19) -0.5890
 4) $-45^\circ, 315^\circ$ 8) 280.15° 12) $-327^\circ 51'$ 16) 100.27° 20) 1.9704

- 21) 72° 25) $(-\frac{\sqrt{3}}{2}, \frac{1}{2})$ 26) $(-\frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}})$ 27) $(\frac{1}{2}, -\frac{\sqrt{3}}{2})$ 28) $(1, 0)$
 22) 81° $\sin \frac{7\pi}{6} = -\frac{1}{2}$ $\sin \frac{3\pi}{4} = \frac{\sqrt{2}}{2}$ $\sin(-\frac{\pi}{3}) = -\frac{\sqrt{3}}{2}$ $\sin 2\pi = 0$
 23) $\frac{\pi}{5}$ $\cos \frac{7\pi}{6} = -\frac{\sqrt{3}}{2}$ $\cos \frac{3\pi}{4} = -\frac{1}{\sqrt{2}}$ $\cos(-\frac{\pi}{3}) = \frac{1}{2}$ $\cos 2\pi = 1$
 24) $\frac{\pi}{3}$ $\tan \frac{7\pi}{6} = \frac{1}{\sqrt{3}}$ $\tan \frac{3\pi}{4} = -1$ $\tan(-\frac{\pi}{3}) = -\sqrt{3}$ $\tan 2\pi = 0$

- 29) $\sin \theta = \frac{4}{5}$ 30) $\sin \theta = \frac{2}{\sqrt{5}}$ 31) $\sin \theta = \frac{-\sqrt{11}}{6}$ 32) $\sin \theta = \frac{12}{13}$ 33) $\tan \frac{\pi}{3} = \sqrt{3}$
 $\cos \theta = \frac{3}{5}$ $\cos \theta = \frac{1}{\sqrt{5}}$ $\cos \theta = \frac{5}{6}$ $\cos \theta = -\frac{5}{13}$ 34) $\sec \frac{\pi}{4} = \sqrt{2}$
 $\tan \theta = \frac{4}{3}$ $\tan \theta = -2$ $\tan \theta = -\frac{\sqrt{11}}{5}$ $\tan \theta = -\frac{12}{5}$ 35) $\cos 495^\circ = -\frac{1}{\sqrt{2}}$
 $\csc \theta = \frac{5}{4}$ $\csc \theta = \frac{\sqrt{5}}{-2}$ $\csc \theta = -\frac{6}{\sqrt{11}}$ $\csc \theta = \frac{13}{12}$ 36) $\csc 270^\circ = -1$
 $\sec \theta = \frac{5}{3}$ $\sec \theta = \sqrt{5}$ $\sec \theta = \frac{6}{5}$ $\sec \theta = -\frac{13}{5}$
 $\cot \theta = \frac{3}{4}$ $\cot \theta = -\frac{1}{2}$ $\cot \theta = -\frac{5}{\sqrt{11}}$ $\cot \theta = -\frac{5}{12}$

37) $\tan 33^\circ = 0.65$

38) $\csc 105^\circ = 1.04$

39) $\sec \frac{12\pi}{5} = 3.24$

40) $\sin -\frac{\pi}{9} = -0.34$

41) 135° or $\frac{3\pi}{4}$
 225° or $\frac{5\pi}{4}$

42) 90° or $\frac{\pi}{2}$
 270° or $\frac{3\pi}{2}$