

(27) $\sin \theta = \frac{1}{4}$ $0 < \theta < \frac{\pi}{2}$ $\cos \theta$

↑ Quad. I

$\sin^2 \theta + \cos^2 \theta = 1$

$(\frac{1}{4})^2 + \cos^2 \theta = 1$
 $-\frac{1}{16}$ $-\frac{1}{16}$

$\therefore \cos \theta = \frac{\sqrt{15}}{4}$

$\sqrt{\cos^2 \theta} = \sqrt{\frac{15}{16}}$
 $\cos \theta = \pm \frac{\sqrt{15}}{4}$

(38) Chart on Pg. 424

$\sin 390^\circ = \sin (360^\circ + 30^\circ)$
 ↗ case 1
 $= \sin 30^\circ$

(39) $\cos \frac{27\pi}{8} = \cos (2\pi + \frac{3\pi}{8})$
 ↗ $\frac{27\pi}{8}$ ↗ case 2

$-\cos(\frac{3\pi}{8})$

(40) $\tan \frac{19\pi}{5} = \tan (4\pi - \frac{\pi}{5})$
 ↗ $\frac{19\pi}{5}$

$\frac{\sin (4\pi - \frac{\pi}{5})}{\cos (4\pi - \frac{\pi}{5})}$
 ↗ case 3 (-) ↗ case 3 (+)

$-\tan(\frac{\pi}{5})$