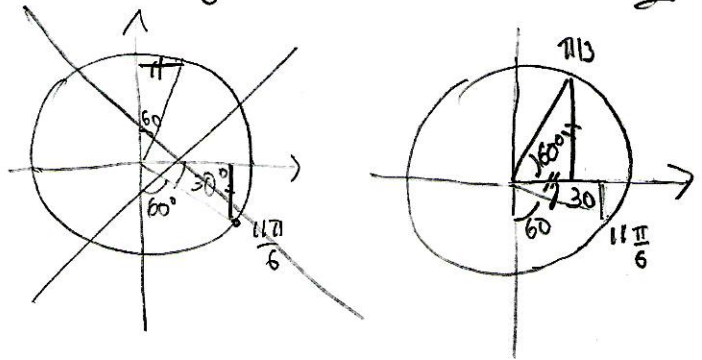


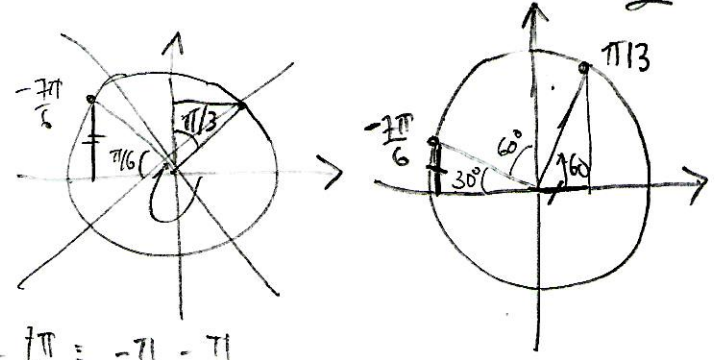
2.

a) $\cos \frac{11\pi}{6} = + \sin \frac{\pi}{3} = \frac{\sqrt{3}}{2}$



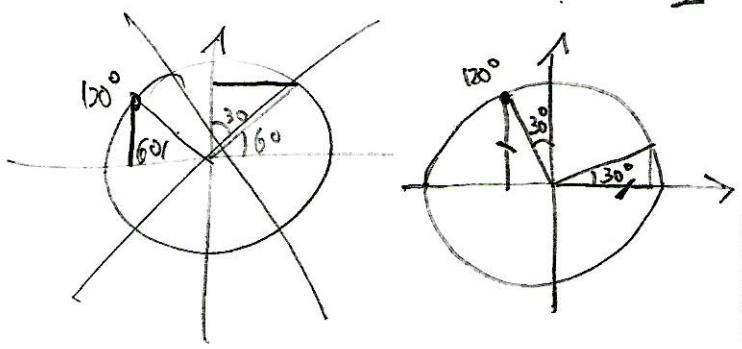
$\frac{11\pi}{6} = \pi + \frac{5\pi}{6}$

b) $\sin(-\frac{7\pi}{6}) = \cos \frac{\pi}{3} = \frac{1}{2}$

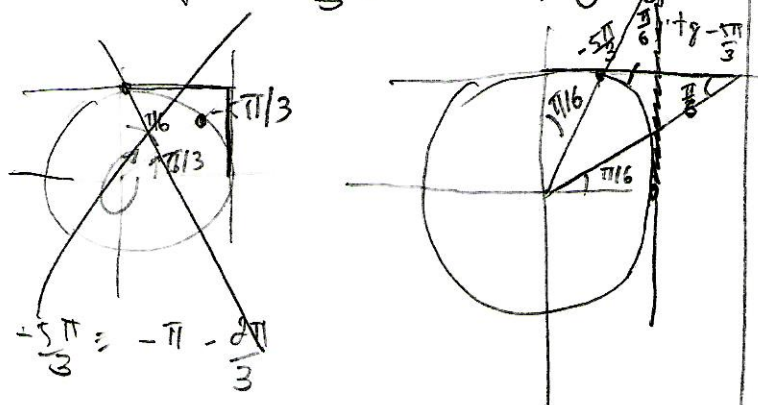


$-\frac{7\pi}{6} = -\pi - \frac{\pi}{6}$

c) $\sin 120^\circ = \cos 30^\circ = \frac{\sqrt{3}}{2}$

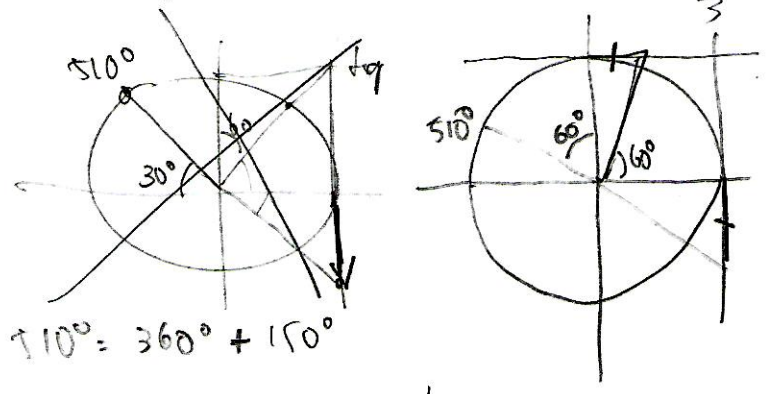


d) $\text{tg}(-\frac{5\pi}{3}) = \text{cotg} \frac{\pi}{6} = \sqrt{3}$



$-\frac{5\pi}{3} = -\pi - \frac{2\pi}{3}$

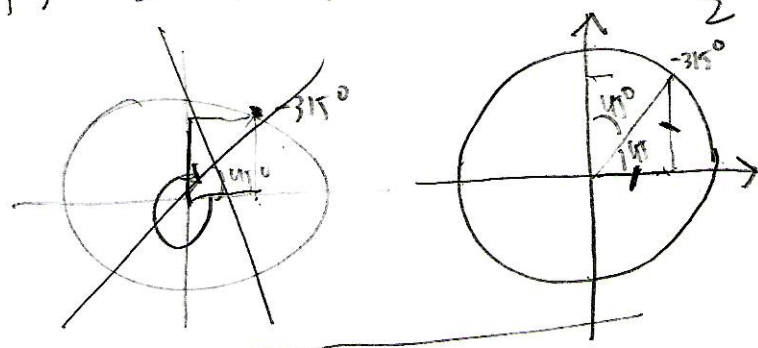
e) $\text{tg} 510^\circ = -\text{cotg} 60^\circ = -\frac{\sqrt{3}}{3}$



$510^\circ = 360^\circ + 150^\circ$

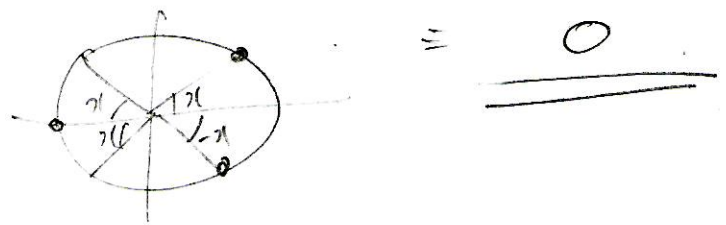
$\text{cotg} 60^\circ = \frac{\cos 60^\circ}{\sin 60^\circ} = \frac{1/2}{\sqrt{3}/2} = \frac{\sqrt{3}}{3}$

f) $\cos(-315^\circ) = \sin 45^\circ = \frac{\sqrt{2}}{2}$



3) a) $\cos x + \cos(\pi-x) - \cos(\pi+x) - \cos(-x) =$

$= \cancel{\cos x} - \cancel{\cos x} - (-\cancel{\cos x}) - \cancel{\cos x} = 0$



b) $\text{tg} x + \text{tg}(\pi-x) + \text{cotg}(\frac{\pi}{2}-x) - \text{tg}(\pi-x) =$

$= \text{tg} x - \text{tg} x + \text{tg} x - (-\text{tg} x) = 2 \text{tg} x$

