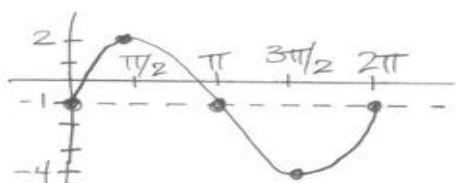


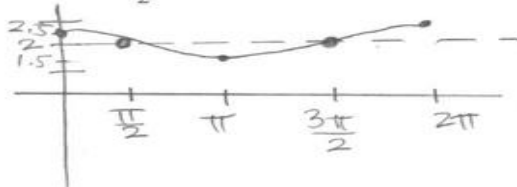
Graphing Sine & Cosine

Graph each function using radians.

1) $y = -1 + 3\sin \theta$

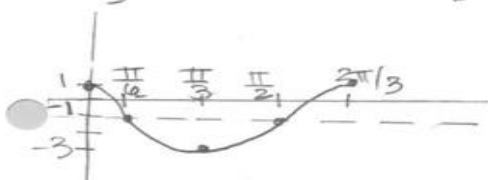


2) $y = 2 + \frac{1}{2}\cos \theta$

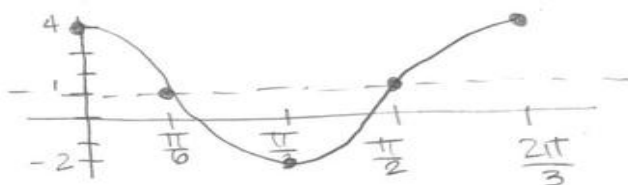


3) $y = 2\cos 3\theta - 1$
period = $\frac{2\pi}{3}$

$\frac{2\pi}{3} \div 4 = \frac{8\pi}{3}$



4) $y = 1 + 3\cos 3\theta$

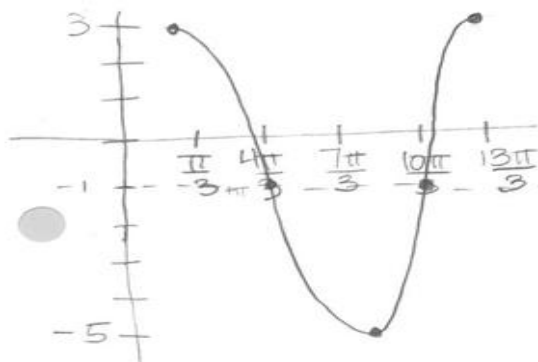


5) $y = 4\cos\left(\frac{\theta}{2} - \frac{\pi}{6}\right) - 1$

per = $\frac{2\pi}{1/2} = 4\pi$

$4\pi \div 4 = \pi$

PS $\frac{\theta}{2} = \frac{\pi}{6} \rightarrow \theta(x) = \frac{\pi}{3}$ *Safety Point*



6) $y = -1 + 4\sin\left(4\theta - \frac{5\pi}{6}\right)$

per = $\frac{2\pi}{4} = \frac{\pi}{2}$

$\frac{\pi}{2} \div 4 = \frac{\pi}{8}$

PS $4x - \frac{5\pi}{6} = 0$
 $4x = \frac{5\pi}{6} \rightarrow x = \frac{5\pi}{24}$

