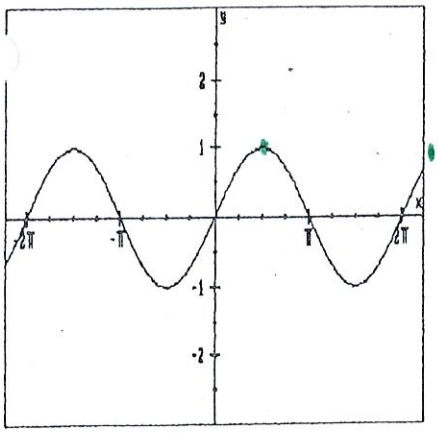
Trig Transformations

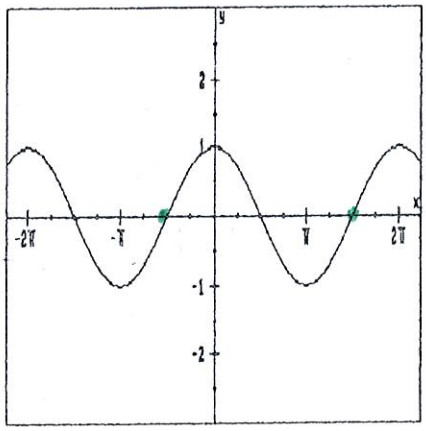
NAME _____

Find 2 (two) equations for each graph. Use SINE for the 1st equation and COSINE for the 2nd equation.



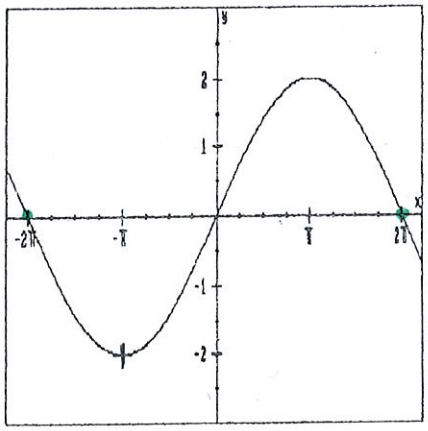
1) $y = \sin\theta$

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



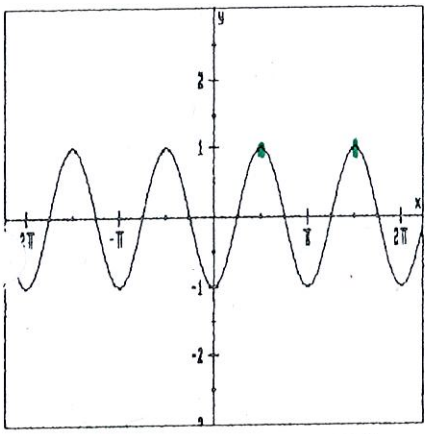
2) $y = \sin\left(\theta + \pi/2\right)$

$y = \cos\theta$



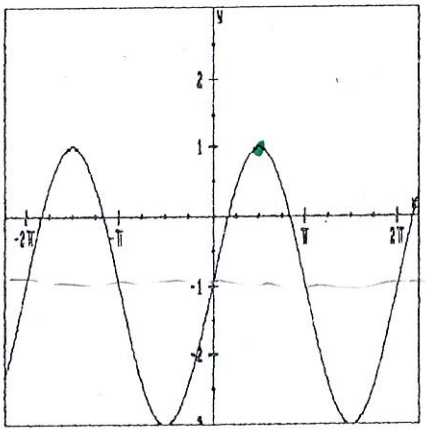
3) $y = 2\sin\frac{1}{2}\theta$

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



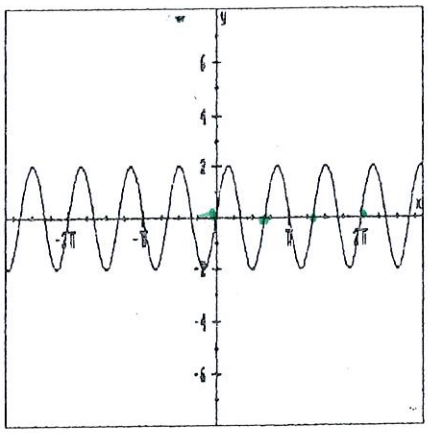
4) $y = \sin 2\left(\theta - \frac{\pi}{4}\right)$

$y = -\cos 2\theta$



5) $y = 2\sin\theta - 1$

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



6) $y = 2\sin 3\theta$

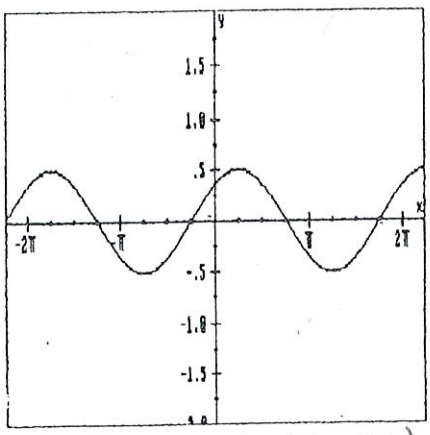
$y = 2\cos 3\left(\theta - \frac{\pi}{6}\right)$

3 cycles

$\frac{2\pi}{3}$ = per

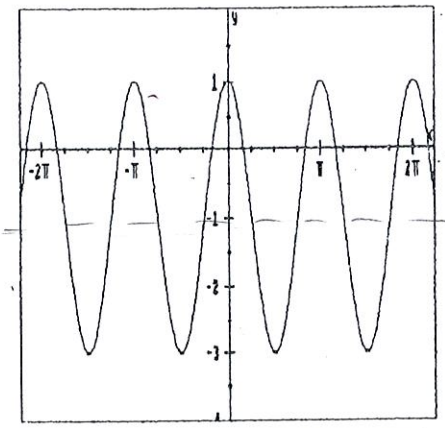
$3 = b$

$\frac{\pi}{6}$ = eac



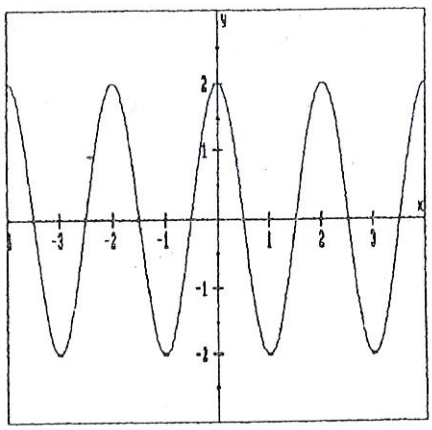
7) $y = .5\sin\left(\theta + \frac{\pi}{4}\right)$

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



8) $y = \sin 2\left(\theta + \frac{\pi}{4}\right) - 1$

$y = \cos 2\theta - 1$



9) $y = 2\sin\pi\left(\theta + \frac{1}{2}\right)$

$y = 2\cos\pi\theta$

period = π

$b = 2$