Precalculus Mathematician Key

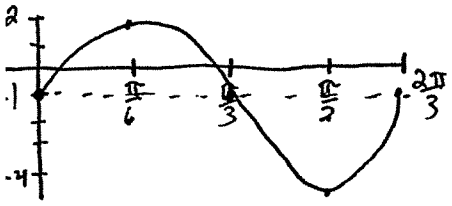
Assignment

Date _____ Period ____

Identify the following: a.) Midline b.) Amplitude c.) Period d.) # of cycles from 0 to 2pi. Then sketch the graph using radians showing at least one cycle of the function and the key values.

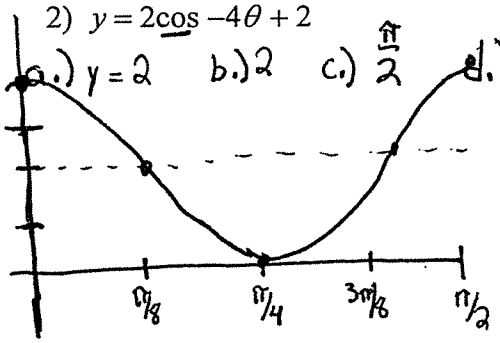
1) $y = 3\sin 3\theta - 1$

a.) $y=-1$ ✓ b.) 3 c.) $\frac{2\pi}{3}$ ✓ d.) 3



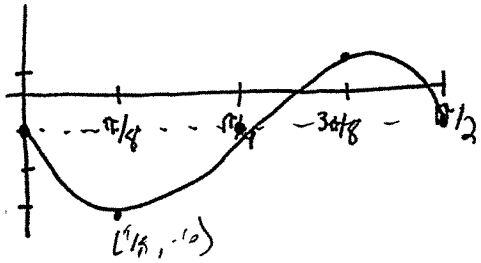
2) $y = 2\cos -4\theta + 2$

a.) $y=2$ b.) 2 c.) $\frac{\pi}{2}$ d.) 4



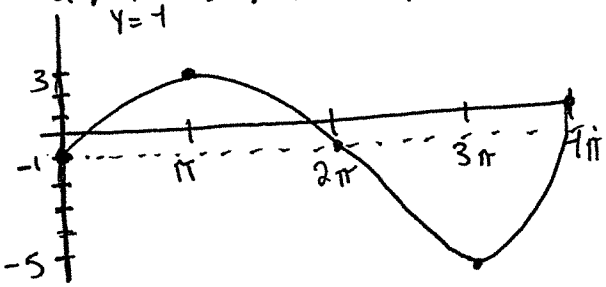
3) $y = -2 + 4\sin -4\theta$

a.) $y=-2$ b.) 4 c.) $\frac{\pi}{2}$ d.) 4



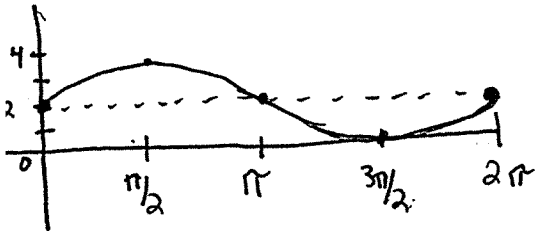
4) $y = 4\sin \frac{\theta}{2} - 1$

a.) $y=-1$ b.) 4 c.) 4π d.) $\frac{1}{2}$



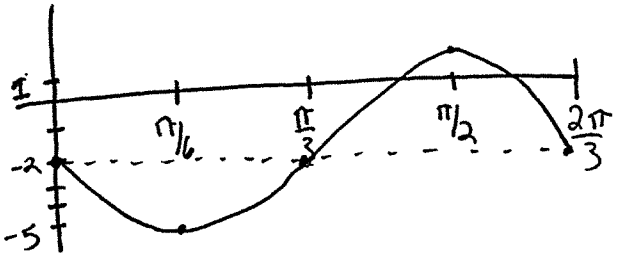
5) $y = 2\sin \theta + 2$

a.) $y=2$ b.) 2 c.) 2π d.) 1



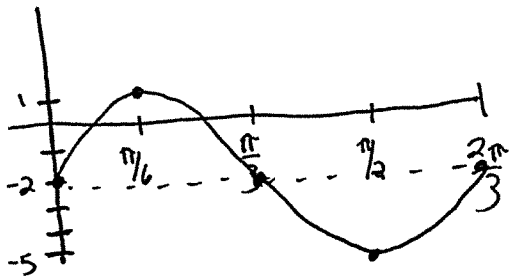
6) $y = -2 + 3\sin 3\theta$

a.) $y=-2$ b.) 3 c.) $\frac{2\pi}{3}$ d.) 3



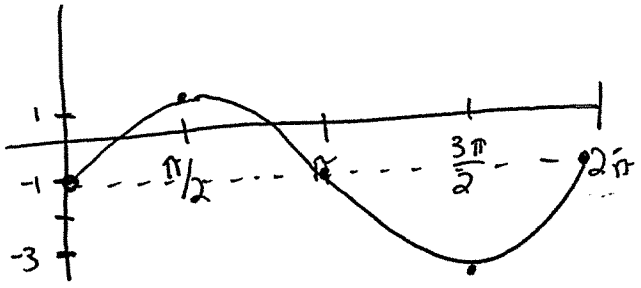
7) $y = -2 + 3\sin 3\theta$

a.) $y=-2$ b.) 3 c.) $\frac{2\pi}{3}$ d.) 3



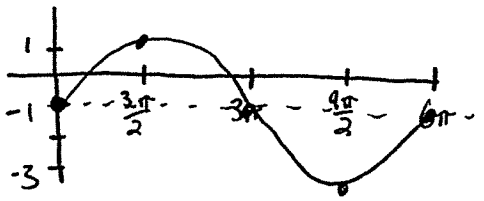
8) $y = 2\sin \theta - 1$

a.) $y=-1$ b.) 2 c.) 2π d.) 1



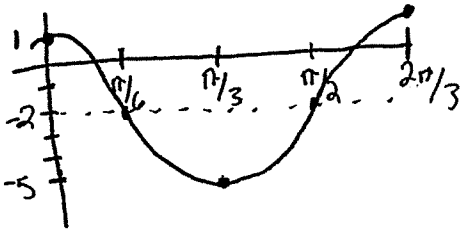
9) $y = 2\sin\frac{\theta}{3} - 1$

a.) $y=-1$ b.) 2 c.) 6π d.) $\frac{1}{3}$



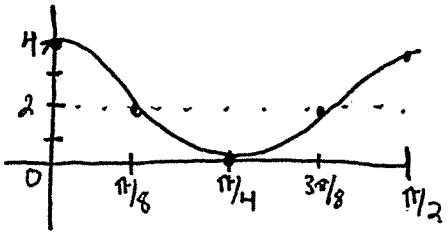
10) $y = 3\cos -3\theta - 2$

a.) $y=-2$ b.) 3 c.) $\frac{2\pi}{3}$ d.) 3



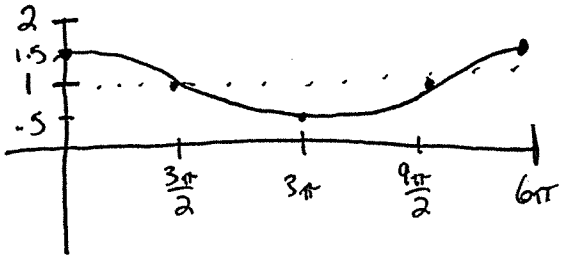
11) $y = 2\cos 4\theta + 2$

a.) $y=2$ b.) 2 c.) $\frac{\pi}{2}$ d.) 4



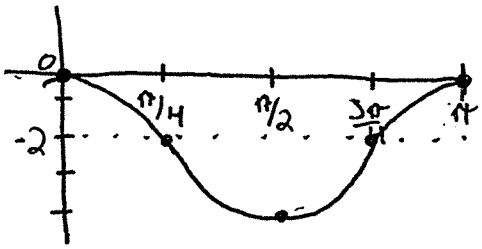
12) $y = 1 + \frac{1}{2}\cdot\cos\frac{\theta}{3}$

a.) $y=1$ b.) $\frac{1}{2}$ c.) 6π d.) $\frac{1}{3}$



13) $y = 2\cos 2\theta - 2$

a.) $y=-2$ b.) 2 c.) π d.) 2



14) $y = \frac{1}{2}\cdot\sin 2\theta + 2$

a.) $y=2$ b.) $\frac{1}{2}$ c.) π d.) 2