PreCalculus
Practice Quiz B – Graphing Sine and Cosine

Name Key 2015

_____ **/ 51 Points** (Not for a Grade)

Graph each function, labeling all critical points on the x-axis and y-axis. Identify the characteristics. (2 points each blank. 5 points each graph.)

1. Graph $y = 3\sin\left(\frac{1}{2}x\right)$ $\frac{2\pi}{1/2} = 4\pi$

amplitude = 3

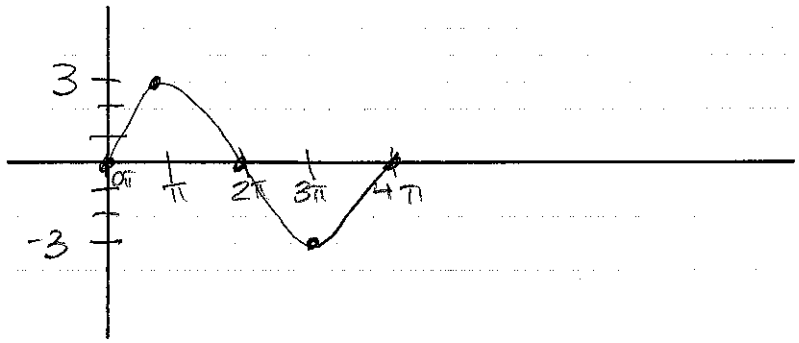
period = 4π

phase shift = NA

vertical shift = NA

domain: $[0, 4\pi]$

range: $[-3, 3]$



2. $y = -2\cos(3\theta) + 3$ $\frac{360}{3} = 120°$

amplitude = 2

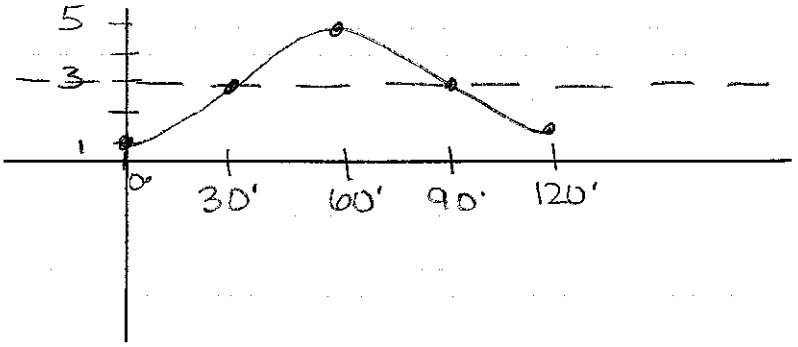
period = 120°

phase shift = NA

vertical shift = 3

domain: $[0°, 120°]$

range: $[1, 5]$



3. $y = 3\sin\left(2x - \frac{\pi}{2}\right) - 1$ $\frac{2\pi}{2} = \pi$

amplitude = 3

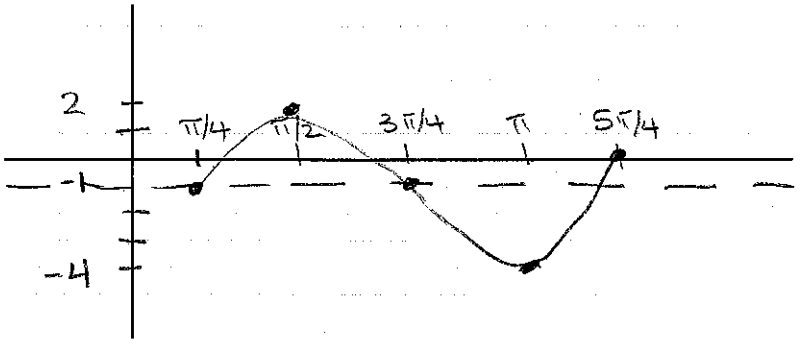
period = π

phase shift = $\pi/4$

vertical shift = -1

domain: $[\pi/4, 5\pi/4]$

range: $[-4, 2]$



$2x - \frac{\pi}{2} = 0$ $\quad 2x - \frac{\pi}{2} = 2\pi$

$x = \frac{\pi}{4}$ $\quad x = \frac{5\pi}{4}$