Hw # 4.6-3 PRE-CALCULUS

Name _____

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

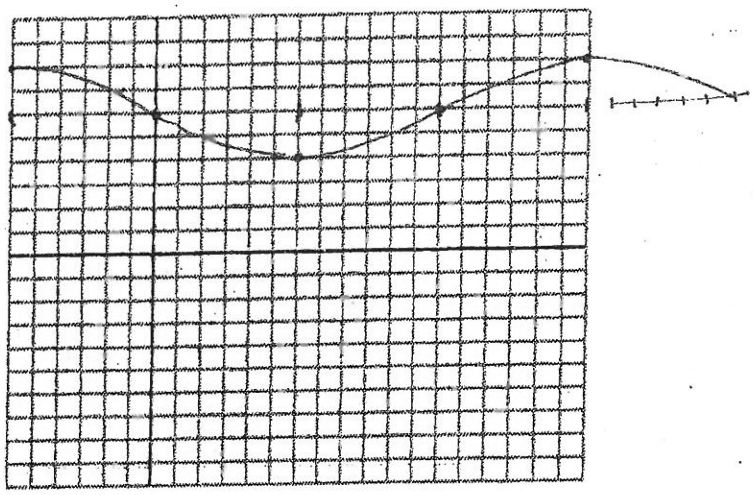
SHIFT: $(0, 3)$

PERIOD: 4π

AMPLITUDE: -1

DOMAIN: $(-\infty, \infty)$

RANGE: $[2, 4]$



2. $y = 2\cos\left(2x - \frac{\pi}{2}\right) = 2\cos 2\left(x - \frac{\pi}{4}\right)$

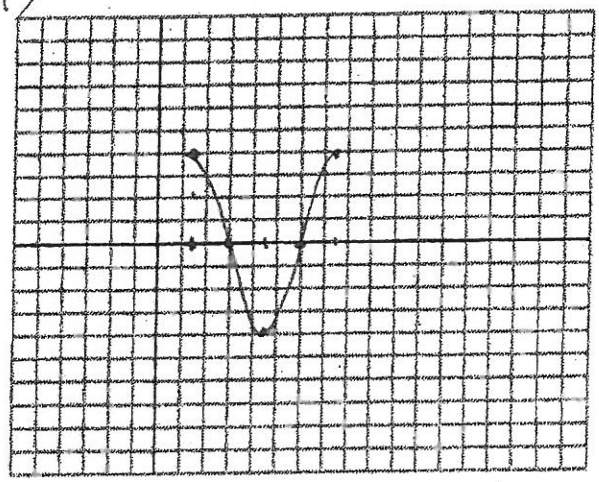
SHIFT: $\left(\frac{\pi}{4}, 0\right)$

PERIOD: π

AMPLITUDE: 2

DOMAIN: $(-\infty, \infty)$

RANGE: $[-2, 2]$



3. $y = 1 + \tan\left(\frac{x}{2}\right) = \tan\frac{1}{2}x + 1$

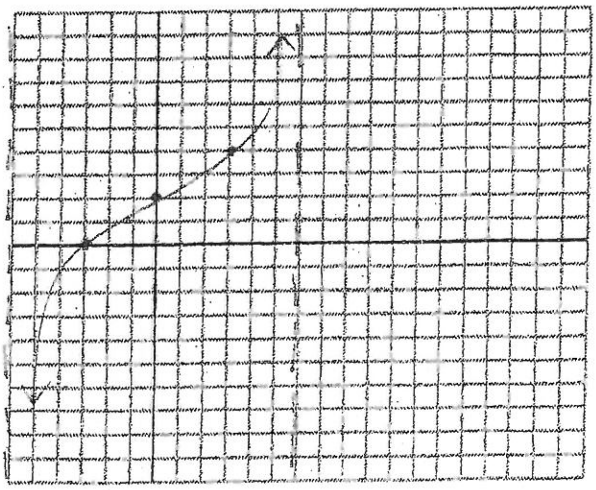
SHIFT: $(0, 1)$

PERIOD: 2π

AMPLITUDE: 1

DOMAIN: $x \neq \pi + 2\pi n$

RANGE: $(-\infty, \infty)$



4.6-2 cont...

Name _____

4. $y = -2\csc x + 2$ (sin)

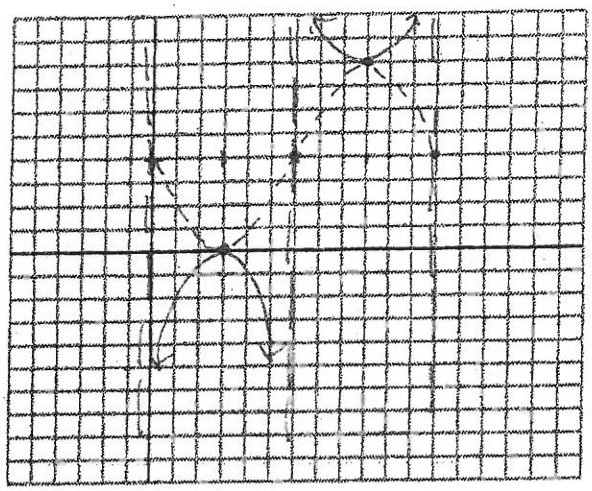
SHIFT: $(0, 2)$

PERIOD: 2π

AMPLITUDE: -2

DOMAIN: $x \neq 0 + \pi n$

RANGE: $(-\infty, 0] \cup [4, \infty)$



5. $y = \sec(2x + \pi) - 1 = \sec 2(x + \frac{\pi}{2}) - 1$ (cos)

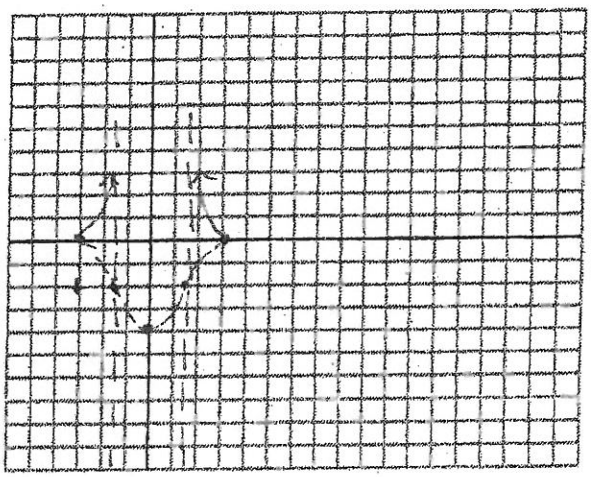
SHIFT: $(-\frac{\pi}{2}, -1)$

PERIOD: π

AMPLITUDE: 1

DOMAIN: $x \neq -\frac{\pi}{4} + \frac{\pi}{2}n$

RANGE: $(-\infty, -2] \cup [0, \infty)$



6. $y = \cot x + 3$

SHIFT: $(0, 3)$

PERIOD: π

AMPLITUDE: 1

DOMAIN: $x \neq 0 + \pi n$

RANGE: $(-\infty, \infty)$