

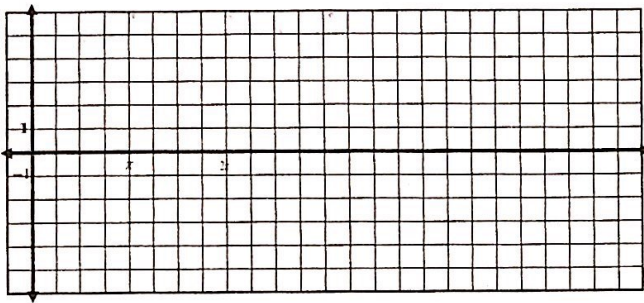
Assignment 2: Graphing Sine and Cosine Functions with Transformations

Indicate each transformation. Then, sketch the graph of each function.

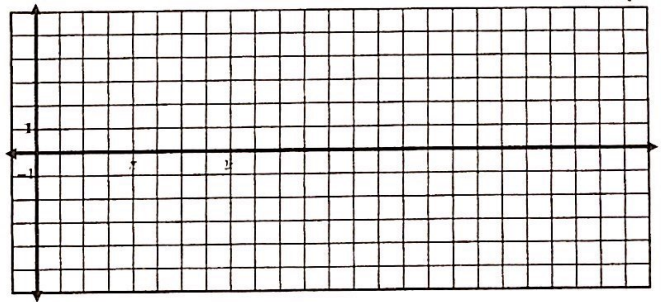
Name _____

Per _____ Date _____

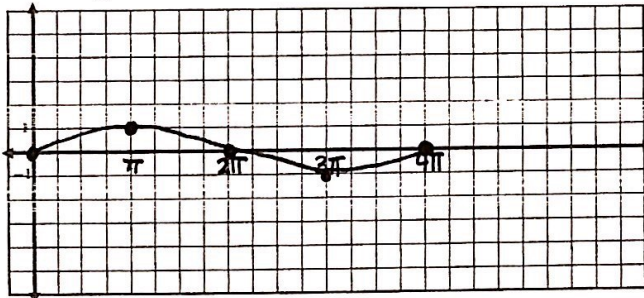
1. $y = 4 \sin x$ Amp = _____ Per = _____ Ph Sh = _____ Ver Sh = _____



2. $y = -2 \cos x + 2$ Amp = _____ Per = _____ Ph Sh = _____ Ver Sh = Up 2



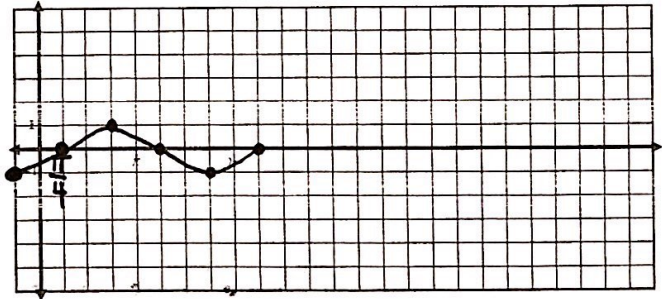
3. $y = \sin \frac{x}{2}$ Amp = 1 Per = 4π Ph Sh = NONE Ver Sh = NONE



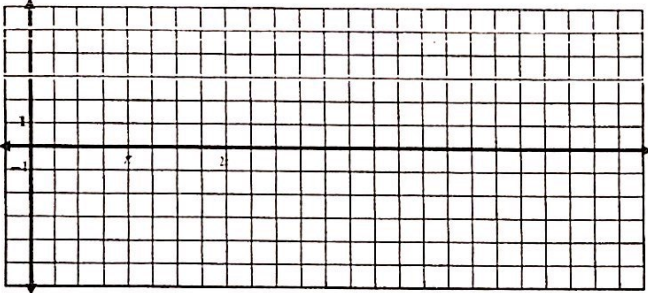
$$y = \sin \frac{1}{2} x$$

$$\text{Period: } \frac{2\pi}{\frac{1}{2}} = 2\pi \cdot 2 = 4\pi$$

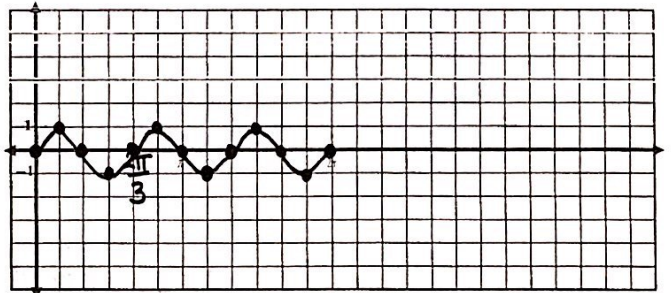
4. $y = \sin \left(x - \frac{\pi}{4} \right)$ Amp = 1 Per = 2π Ph Sh = Right π/4 Ver Sh = NONE



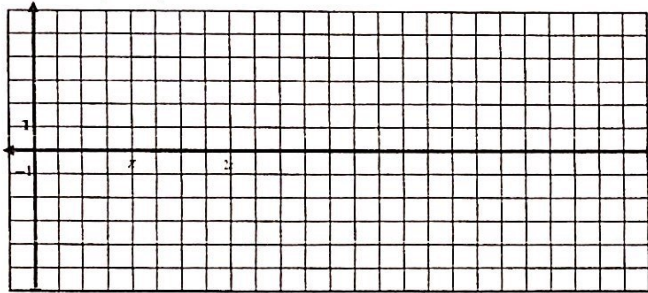
5. $y = \cos(2x)$ Amp = _____ Per = _____ Ph Sh = _____ Ver Sh = _____



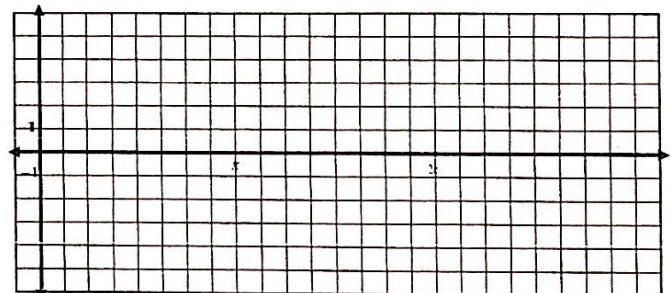
6. $y = \sin(3x)$ Amp = 1 Per = $\frac{2\pi \cdot 2}{3} = \frac{4\pi}{3}$ Ph Sh = NONE Ver Sh = NONE



7. $y = \sin 2\left(x - \frac{\pi}{4}\right)$ Amp = _____ Per = _____ Ph Sh = _____ Ver Sh = _____



8. $y = 3\sin 4(x - \pi)$ Amp = _____ Per = _____ Ph Sh = _____ Ver Sh = _____



9. $y = \cos\left(x + \frac{\pi}{4}\right) + 1$ Amp = 1 Per = 2π Ph Sh = Left π/4 Ver Sh = Up 1

10. $y = 2\sin 2\left(x - \frac{\pi}{2}\right) - 2$ Amp = 2 Per = $\frac{2\pi}{2} = \pi$ Ph Sh = Right π/2 Ver Sh = Down 2

