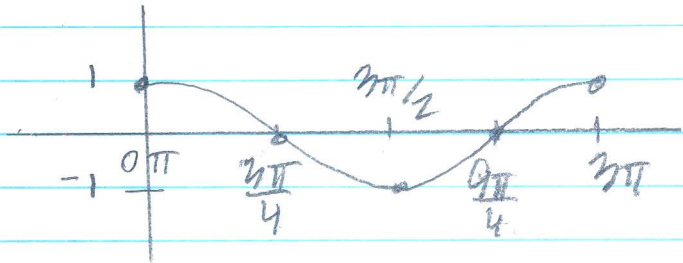


Avoiding Horizontal Reflections

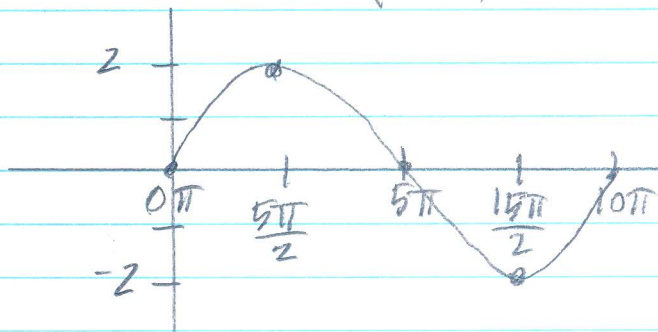
1) $y = \cos\left(-\frac{2}{3}x\right) \rightarrow y = \cos\left(\frac{2}{3}x\right)$

amp = 1
period = 3π
p. shift = none
v. shift = none
D: $[0\pi, 3\pi]$
R: $[-1, 1]$



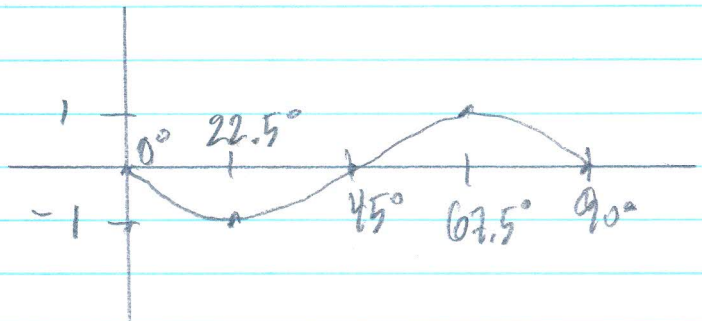
2) $y = -2\sin\left(-\frac{1}{5}x\right) \rightarrow y = 2\sin\left(\frac{1}{5}x\right)$

amp = 2
period = 10π
p. shift = none
v. shift = none
D: $[0\pi, 10\pi]$
R: $[-2, 2]$



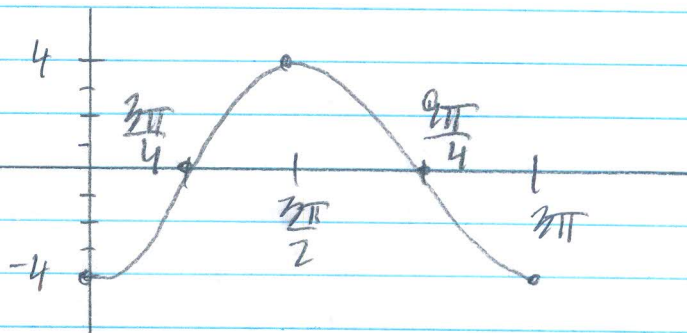
3) $y = \sin(-4\theta) \rightarrow y = -\sin(4\theta)$

amp = 1
period = 90°
p. shift = none
v. shift = none
D: $[0^\circ, 90^\circ]$
R: $[-1, 1]$



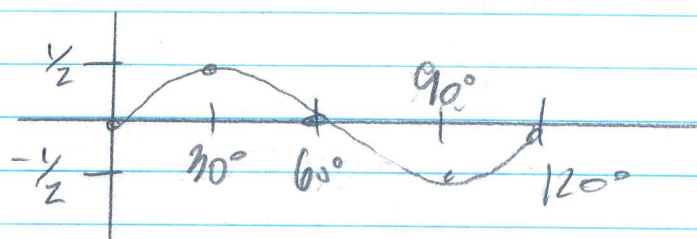
$$4) f(x) = -4 \cos\left(-\frac{2}{3}x\right) \rightarrow f(x) = -4 \cos\left(\frac{2}{3}x\right)$$

amp = 4
 period = 3π
 p shift = none
 v shift = none
 D: $[\pi, 3\pi]$
 R: $[-4, 4]$



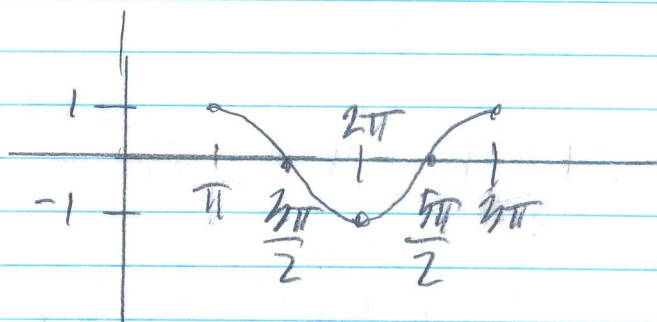
$$5) y = -\frac{1}{2} \sin(-3\theta) \rightarrow y = \frac{1}{2} \sin(3\theta)$$

amp = $\frac{1}{2}$
 period = 120°
 p shift = none
 v shift = none
 D: $[0^\circ, 120^\circ]$
 R: $[-\frac{1}{2}, \frac{1}{2}]$



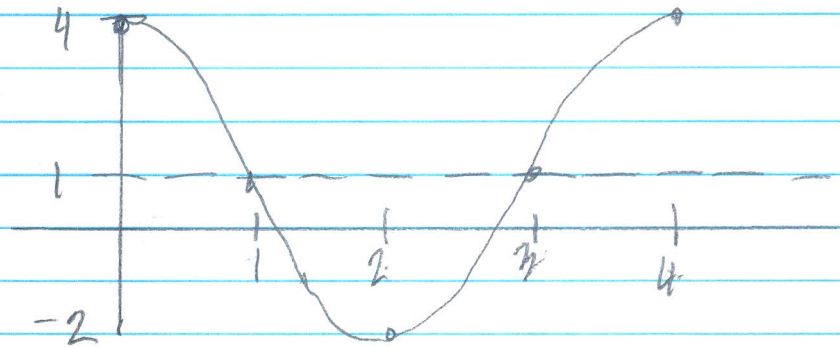
$$6) y = \cos(-x + \pi) \rightarrow y = \cos(x - \pi)$$

amp = 1
 period = 2π
 p shift = π
 v shift = none
 D: $[\pi, 3\pi]$
 R: $[-1, 1]$



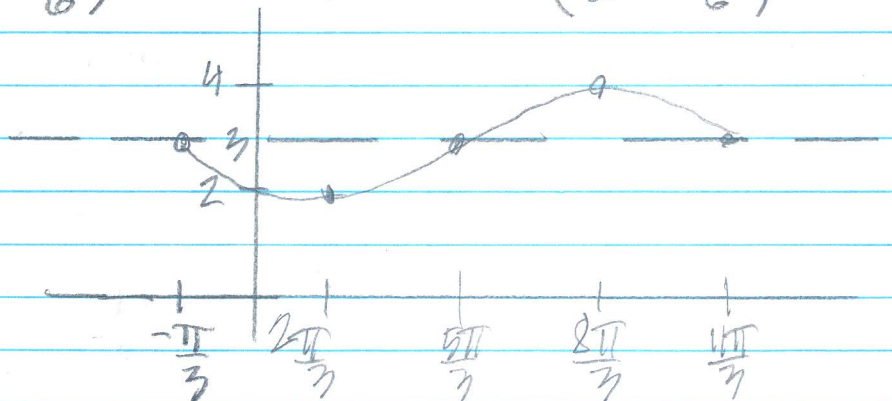
$$7) y = 1 + 3 \cos\left(-\frac{\pi}{2}x\right) \rightarrow y = 3 \cos\left(\frac{\pi}{2}x\right) + 1$$

amp = 3
 period = 4
 p. shift = none
 v. shift = 1
 D: $[0, 4]$
 R: $[-2, 4]$



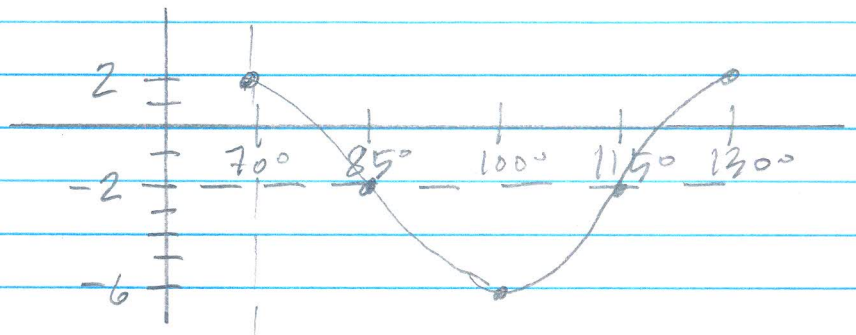
$$8) y = 3 + \sin\left(-\frac{1}{2}x - \frac{\pi}{6}\right) \rightarrow y = -\sin\left(\frac{1}{2}x + \frac{\pi}{6}\right) + 3$$

amp = 1
 period = 4π
 p. shift = $-\pi/3$
 v. shift = 3
 D: $[\pi/3, 11\pi/3]$
 R: $[2, 4]$



$$9) y = 4 \cos(-6\theta + 420^\circ) - 2 \rightarrow y = 4 \cos(6\theta - 420^\circ) - 2$$

amp = 4
 period = 60°
 p. shift = 70°
 v. shift = -2
 D: $[70^\circ, 130^\circ]$
 R: $[-6, 2]$



$$10) y = 4 \sin(-3\theta - 99^\circ) - 1 \longrightarrow y = -4 \sin(3\theta + 99^\circ) - 1$$

$$\text{amp} = 4$$

$$\text{period} = 120^\circ$$

$$\text{p shift} = -33^\circ$$

$$\text{v shift} = -1$$

$$D: [-33^\circ, 87^\circ]$$

$$R: [-5, 3]$$

