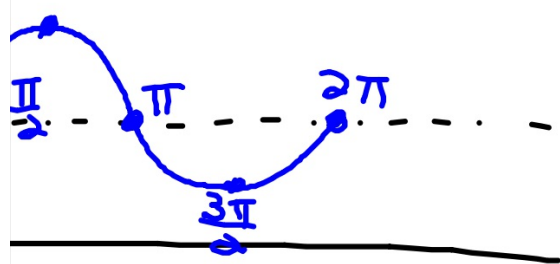


$y = \sin \theta + 2$



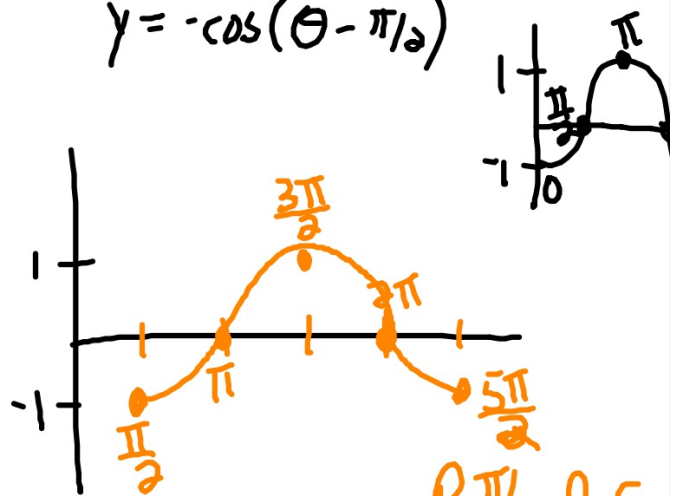
Description of change: U_2

Period: 2π Amp: 1 Asym: none

pts: $(0, 2) (\frac{\pi}{2}, 3) (\pi, 2) (\frac{3\pi}{2}, 1) (2\pi, 2)$

2. $y = -\cos(\theta - 90)$

$y = -\cos(\theta - \pi/2)$

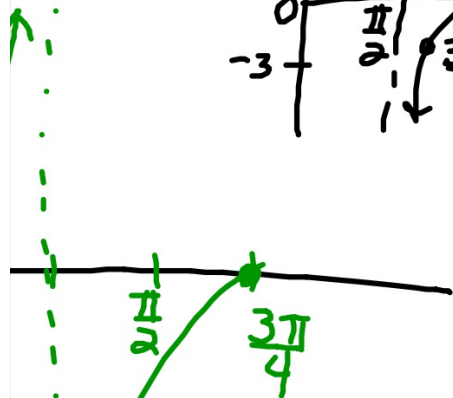
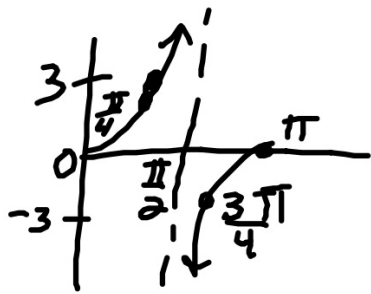


Description of change: $R_{\pi/2}, Refl.$

Period: 2π Amp: 1 Asym: none

pts: $(\frac{\pi}{2}, -1) (\pi, 0) (\frac{3\pi}{2}, 1)$
 $(2\pi, 0) (\frac{5\pi}{2}, -1)$

$\tan\left(\theta + \frac{\pi}{4}\right)$

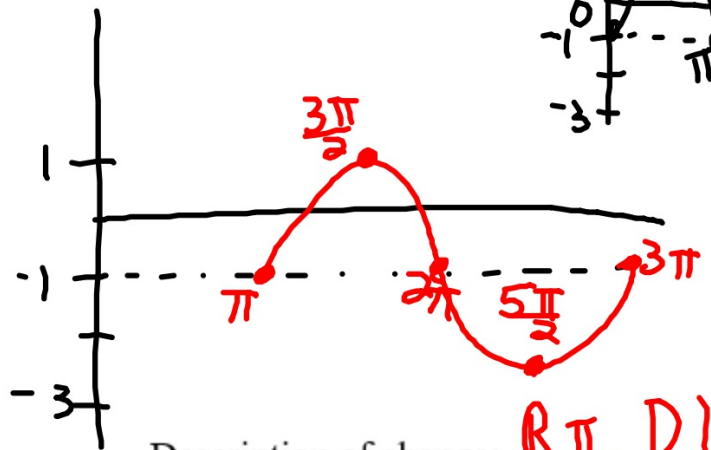
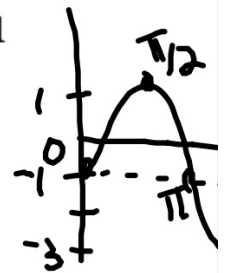


ion of change: $L \pi/4$, vert. stretch

π Amp: none Asym: $\pi/4$

$(\pi/4, 0) (0, 3) (\pi/2, -3) (3\pi/4, 0)$

4. $y = 2 \sin(\theta - \cancel{\pi}) - 1$



Description of change: $R \pi, D 1$

Period: 2π Amp: 2 Asym: none

Pts: $(\pi, -1) (3\pi/2, 1) (2\pi, -1) (5\pi/2, 1) (3\pi, -1)$

$$y = 3 \sin(2\theta + \pi) - 1$$

$$y = 3 \sin(2(\theta + \frac{\pi}{2})) - 1$$

Amp: 3 Chgs: D1, L $\pi/2$

Ph: π Asm: none

Pts: $(-\frac{\pi}{2}, -1)$ $(-\frac{\pi}{4}, 2)$ $(0, -1)$ $(\frac{\pi}{4}, -4)$
 $(\frac{\pi}{2}, -1)$

