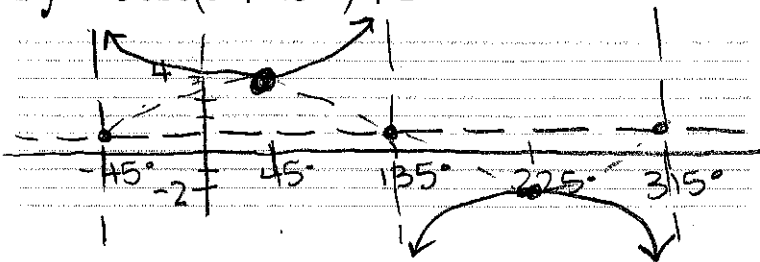


Warm-up #2:

Graph the following functions. State the period, domain and range.

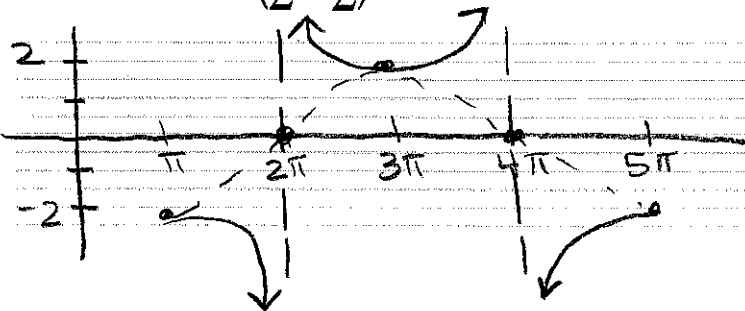
1.  $y = 3\csc(\theta + 45^\circ) + 1$



- ① Sin (Pos)  $\sim$   
 $\theta + 45^\circ = 0$      $\theta + 45^\circ = 360$   
 $\theta = -45^\circ$      $\theta = 315^\circ$

- ② VS: 1  
 Amp: 3
- |   |
|---|
| Pd: $360^\circ$   |
| D: $(-45^\circ, 135^\circ) \cup (135^\circ, 315^\circ)$ |
| R: $(-\infty, -2] \cup [4, \infty)$                     |

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



- ① cos (neg)  $\cap$   
 $\frac{x}{2} - \frac{\pi}{2} = 0$      $\frac{x}{2} - \frac{\pi}{2} = 2\pi$   
 $\frac{x}{2} - \frac{\pi}{2} = \pi$      $\frac{x}{2} = \frac{5\pi}{2}$   
 $x = \pi$      $x = 5\pi$

- ② VS: 0  
 Amp: 2

- |  |
|--|
| Pd: $4\pi$   |
| D: $[\pi, 2\pi) \cup (2\pi, 4\pi) \cup (4\pi, 5\pi]$ |
| R: $(-\infty, -2] \cup [2, \infty)$                  |