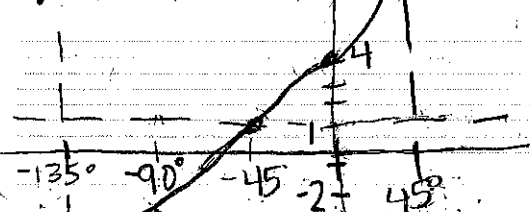


Warm-up #3:

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

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

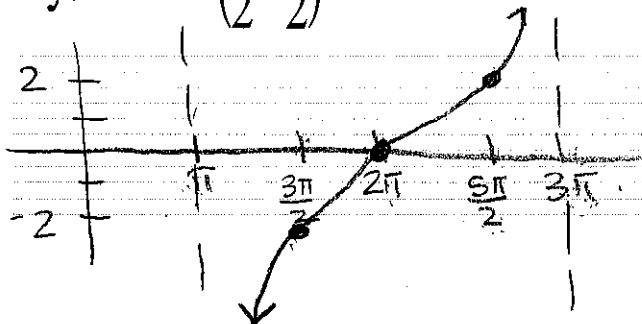


① $\theta + 45^\circ = -90^\circ$ $\theta + 45^\circ = 90^\circ$
 $\theta = -135^\circ$ (Asymp) $\theta = 45^\circ$

② $VS = 1$
 $a = 3$

Pd: 180°
 D: $(-135^\circ, 45^\circ)$
 R: $(-\infty, \infty)$

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



① $\frac{x}{2} - \frac{\pi}{2} = 0$ $\frac{x}{2} - \frac{\pi}{2} = \pi$

2. $\frac{x}{2} = \frac{\pi}{2} \cdot 2$ 2. $\frac{x}{2} = \frac{3\pi}{2} \cdot 2$

$x = \pi$ [Asymp] $x = 3\pi$

② $VS = 0$
 $a = 2$

Pd: 2π
 D: $(\pi, 3\pi)$
 R: $(-\infty, \infty)$

