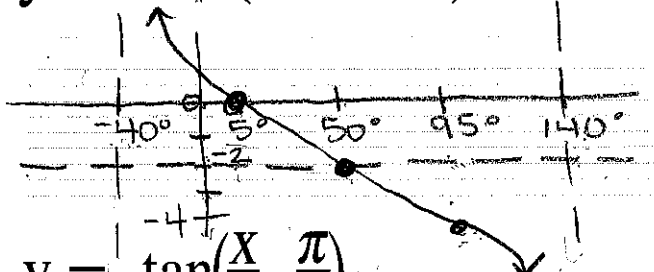


Warm-up 4:

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

1. $y = 2\cot(\theta + 40^\circ) - 2$

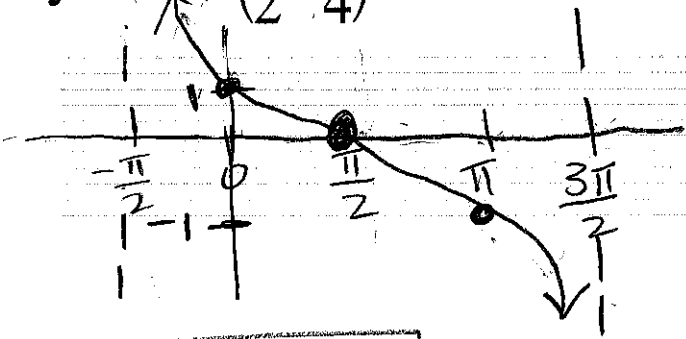


① $\theta + 40 = 0$ $\theta + 40 = 180$
 $\theta = -40^\circ$ $\theta = 140^\circ$

② vs: -2
 a: 2

Pd: $140 - (-40) = 180^\circ$
 D: $(-40^\circ, 140^\circ)$
 R: $(-\infty, \infty)$

2. $y = -\tan\left(\frac{x}{2} - \frac{\pi}{4}\right)$



① $\frac{x}{2} - \frac{\pi}{4} = -\frac{\pi}{2}$ $\frac{x}{2} - \frac{\pi}{4} = \frac{\pi}{2}$

2. $\frac{x}{2} = -\frac{\pi}{4} + 2$ 2. $\frac{x}{2} = \frac{3\pi}{4} + 2$
 $x = -\frac{\pi}{2}$ $x = \frac{3\pi}{2}$

Pd: $\frac{3\pi}{2} + \frac{\pi}{2} = \frac{4\pi}{2} = 2\pi$

D: $(-\frac{\pi}{2}, \frac{3\pi}{2})$
 R: $(-\infty, \infty)$

② vs: 0
 a: 1

