Bell Work Section 4.6 A

State the amplitude and period of the sinusoid, the phase shift and vertical translation (relative to the basic function) .

1. $y = 4 - \cos(x + \pi/2)$

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

reflect

amp: 1

Period: $\frac{2\pi}{b} = 2\pi$

Left $\pi/2$

up 4

2. $y = 4\cos 3\pi x - 2$

amp: 4

Period: $\frac{2\pi}{b} = \frac{2\cancel{\pi}}{3\cancel{\pi}} = \frac{2}{3}$

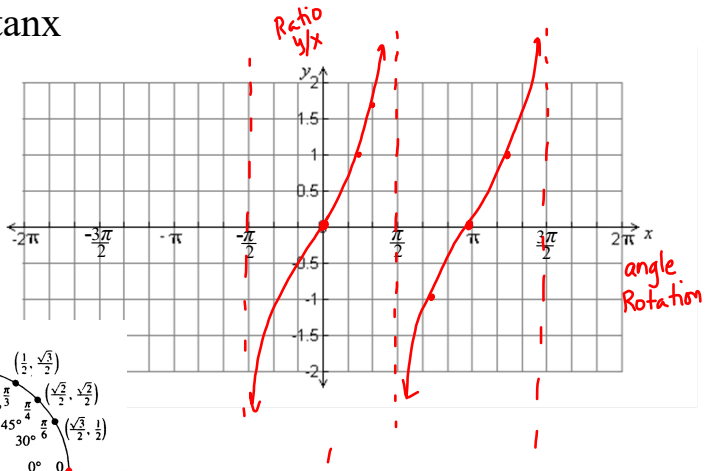
count: $\frac{2}{3 \cdot 4} = \frac{1}{6}$

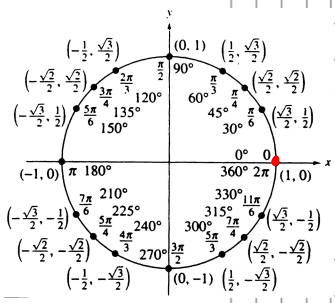
down 2

Graph y = tanx

Period: $\frac{\pi}{b}$

count: $\frac{P}{2}$

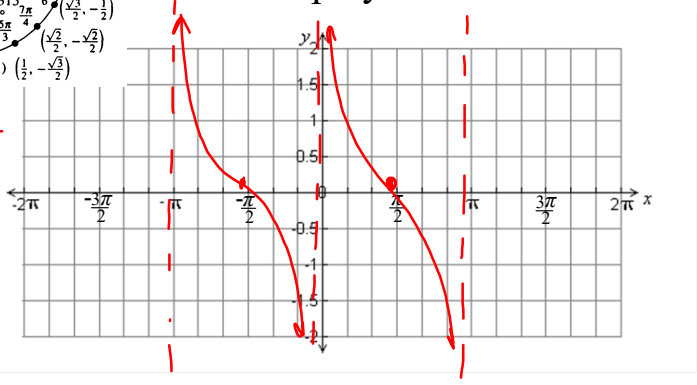




Graph y = cotx

Period: $\frac{\pi}{b}$

Count: $\frac{P}{2}$

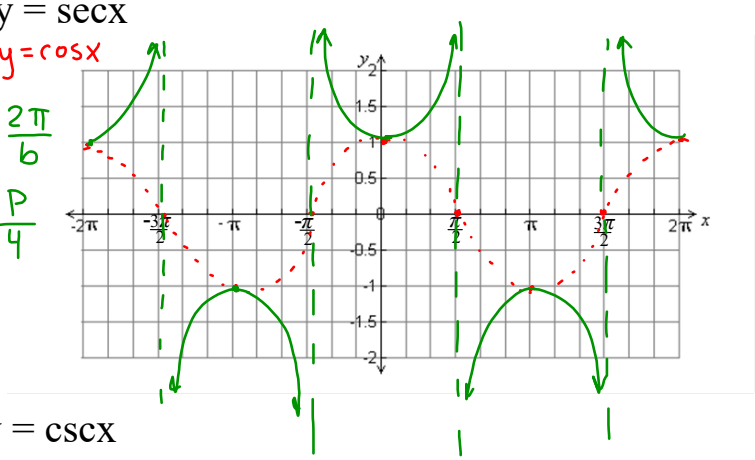


Graph y = secx

y = cosx

period: $\frac{2\pi}{b}$

count: $\frac{P}{4}$

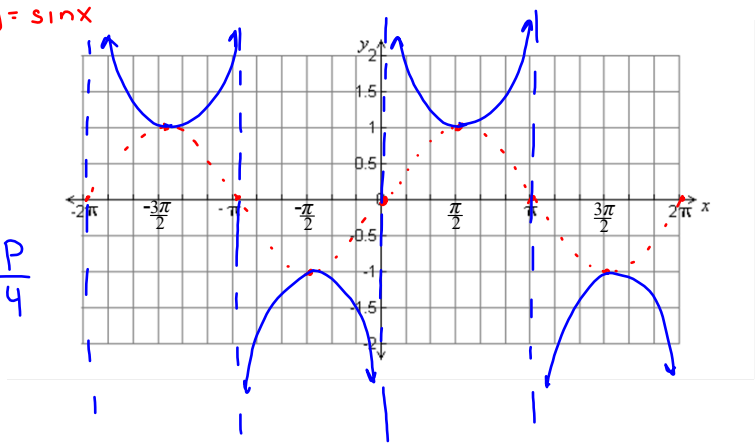


Graph y = cscx

y = sinx

$P = \frac{2\pi}{b}$

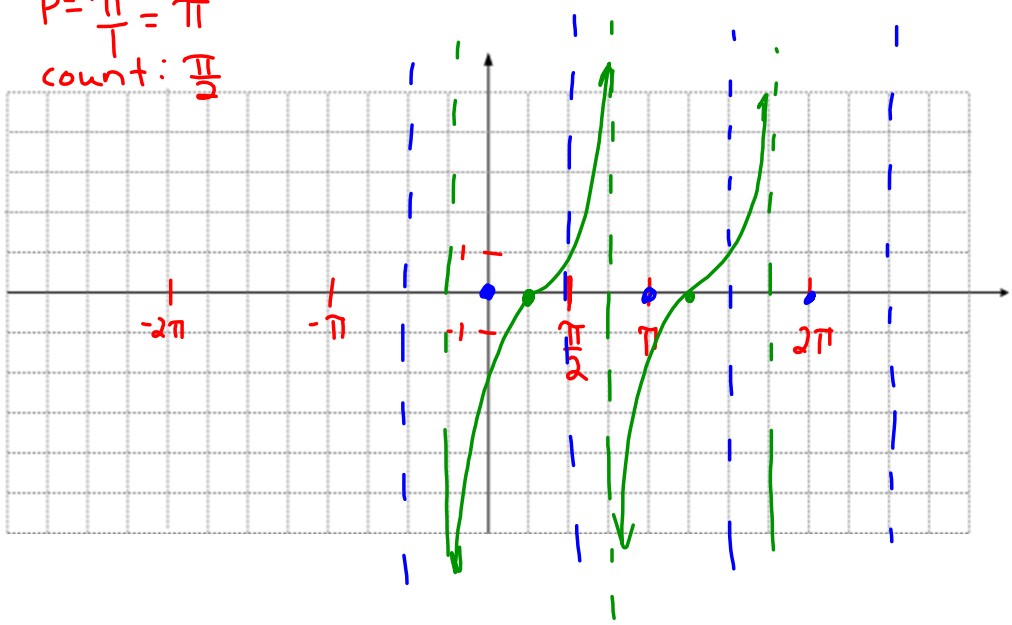
count: $\frac{P}{4}$



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

$P = \frac{\pi}{1} = \pi$

count: $\frac{\pi}{2}$



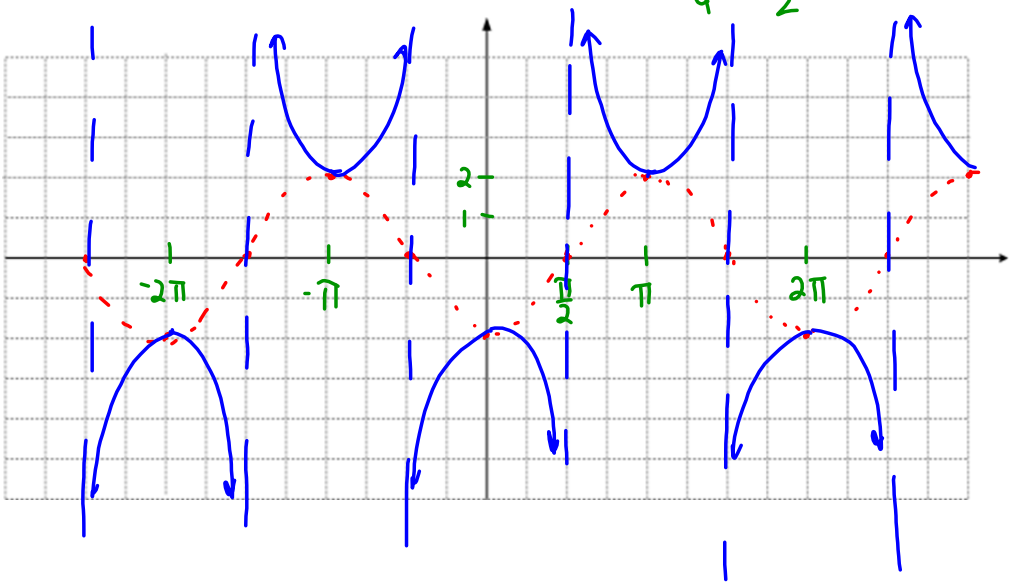
$$y = 2\csc\left(x - \frac{\pi}{2}\right)$$

amp: 2

P: 2π

count: $\frac{2\pi}{4} = \frac{\pi}{2}$

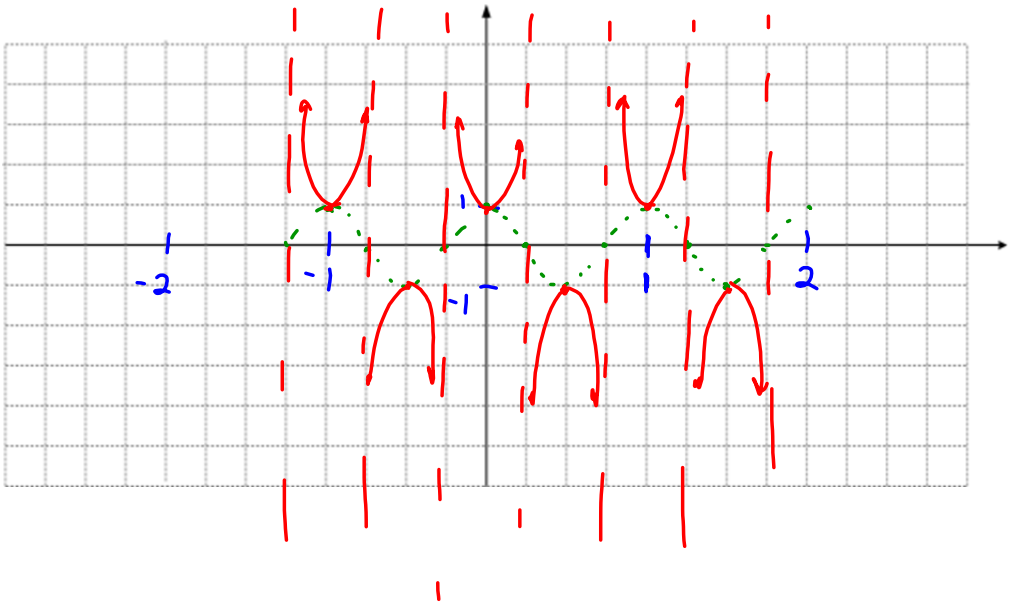
right $\frac{\pi}{2}$



$$y = \sec 2\pi x$$

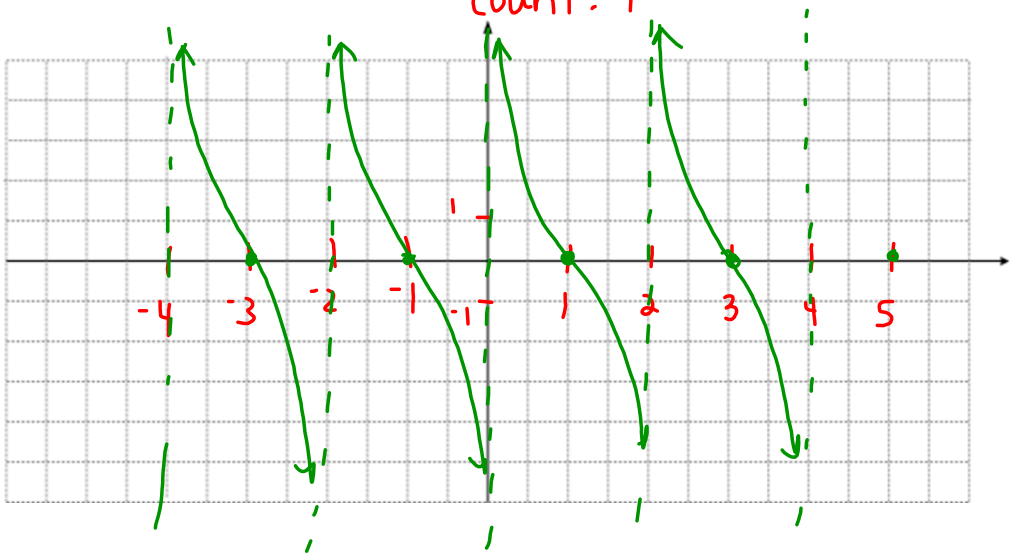
$P = \frac{2\pi}{2\pi} = 1$

count: $1/4$



$$y = \cot \frac{\pi}{2} x$$

$$P = \frac{\pi}{\frac{\pi}{2}} = 2$$

$$\pi \cdot \frac{2}{\pi} =$$

count: 1