

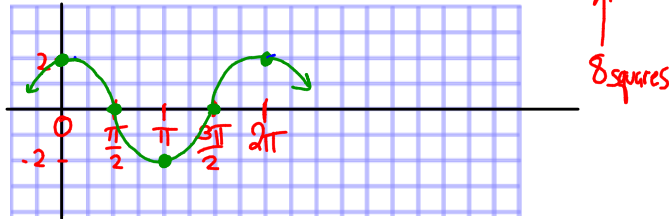
$y = a \sin bx$ and $y = a \cos bx$

*Sin starts out on the shore...
Cos starts out on a cliff...*

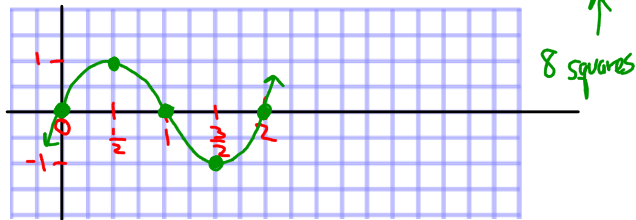
Identify the period: $\frac{2\pi}{|b|}$
How long it takes (in radians) to start repeating

Identify the amplitude: $|a|$
 $\frac{\text{max} - \text{min}}{2}$

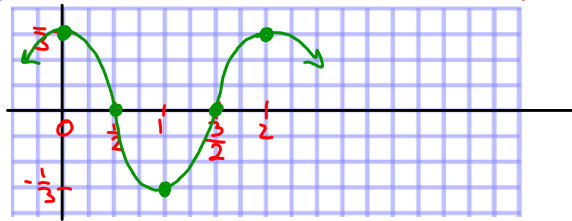
$y = 2 \cos x$ amplitude: 2 period: $\frac{2\pi}{1} = 2\pi$



$y = \sin \pi x$ amplitude: 1 period: $\frac{2\pi}{\pi} = 2$



$y = \frac{1}{3} \cos \pi x$ amplitude: $\frac{1}{3}$ period: $\frac{2\pi}{\pi} = 2$



$y = 2 \sin 3x$ amplitude: 2 period: $\frac{2\pi}{3}$

