

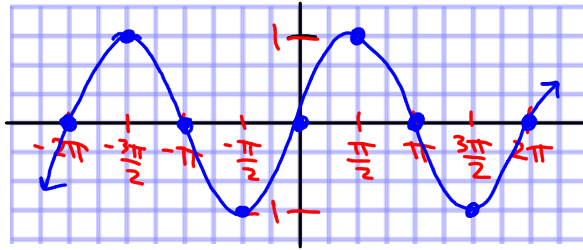
$y = a \sin bx$ and $y = a \cos bx$

*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. Tip: Use 8 squares for the period.

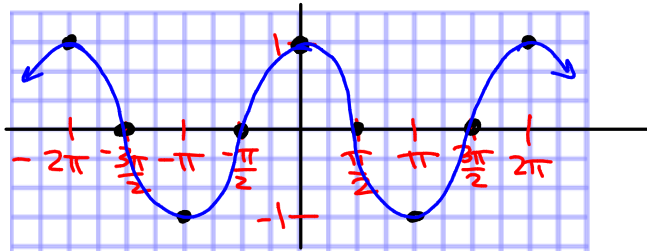
Identify the amplitude: $|a|$
 $\frac{\text{max} - \text{min}}{2}$

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

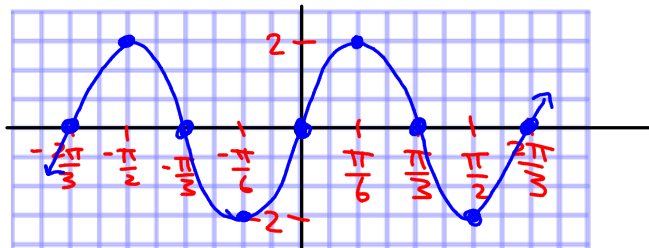


8 squares
↑

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



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



8 squares
↑