

## Graphing Sine and Cosine Functions

When graphing functions of the form  $y = a \sin bx + c$  and  $y = a \cos bx + c$  we can use the following aids.

The Amplitude will be  $|a|$

The Period will  $\frac{2\pi}{b}$

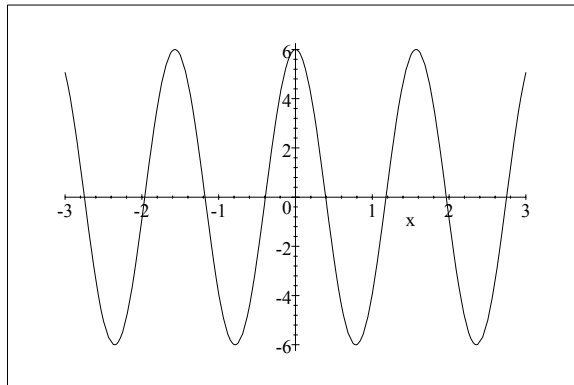
The Translation will be  $\frac{c}{b}$

Example: Consider  $y = 6 \sin 4x - \frac{\pi}{2}$

The amplitude is  $|6| = 6$

The period is  $\frac{2\pi}{4} = \frac{\pi}{2}$

The translation is  $-\frac{\pi}{4} = -\frac{\pi}{8}$



The graph is therefore:

We will examine this graph more closely in class. And...we will look at several more examples.