Sketch two periods of the "parent" graph for Sine and Cosine:

$y = \sin x$

$y = \cos x$
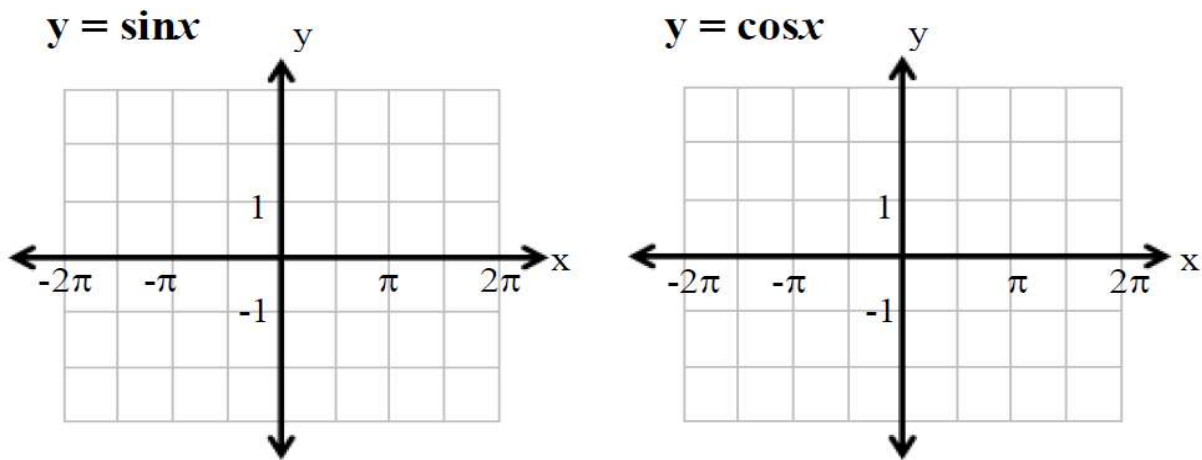
Notes Chapter 5: Graphing Sine and Cosine

graphing form:	graphing form:
$y = A\sin k(x - b) + h$	$y = A\cos k(x - b) + h$

Be sure that the equation is in graphing form where k (the coefficient of x) has been <u>factored out</u> of the parentheses. Then, identify and plot information in the following order:

_____ → moves entire graph up or down

_____ → a **horizontal** axis used as a reference line for sine/cosine graphs

_____ → **vertical** stretch/compression that creates maximum and minimum values for sine and cosine
Note: if A < 0, then the graph will reflect (flip) across the x-axis

_____ → the horizontal length of one full cycle (**horizontal** stretch/compression)
Note: if k > 1, then the period decreases
if 0 < k < 1, then period increases

_____ → or **PHASE SHIFT**: a horizontal translation (slide) of a trig function

Note: frequency is the number of cycles that occur in one horizontal unit → $\dfrac{k}{2\pi}$