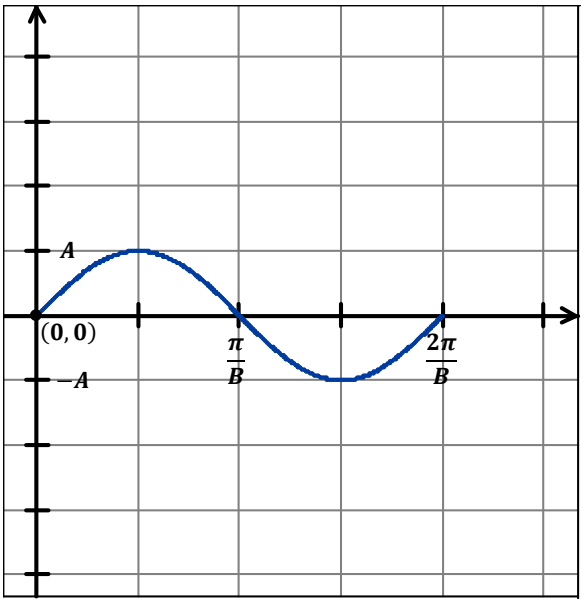
Graphing Sine and Cosine

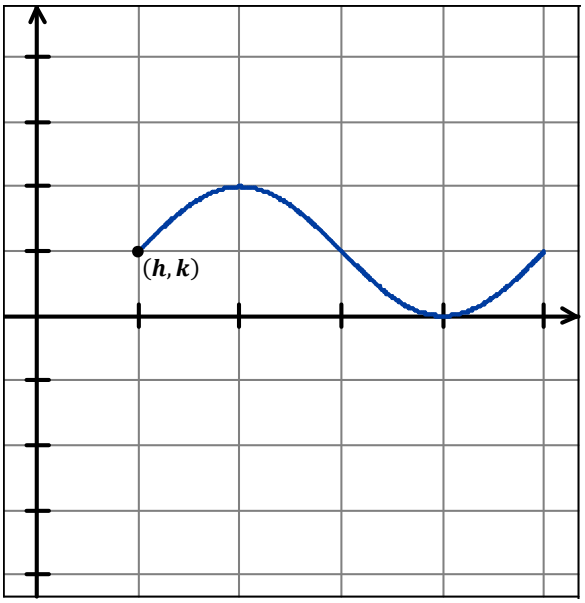
The graphs of $y = k + A\sin\big(B(x-h)\big)$ or $y = k + A\cos\big(B(x-h)\big)$ where $B > 0$, will have the following characteristics:

1. The Period is equal to $\frac{2\pi}{B}$.
2. The Phase Shift is equal to h.
3. The Vertical Translation is equal to k.
4. The Amplitude is equal to $|A|$. If $A < 0$ the graph will be reflected about the x-axis.

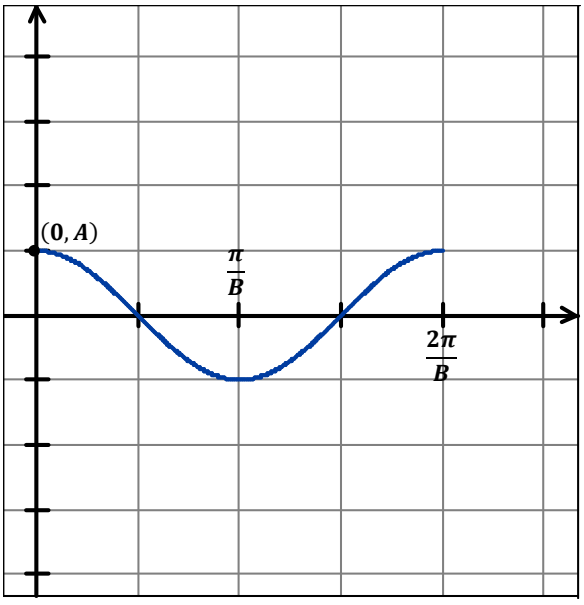
The Graph of $y = A\sin Bx$



The Graph of $y = k + A\sin\big(B(x-h)\big)$



The Graph of $y = A\cos Bx$



The Graph of $y = k + A\cos\big(B(x-h)\big)$