**7.1 Graphing Sine and Cosine Notes**

**General Equations and Graphs**

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| --- | --- |
| Sine | Cosine |

The **amplitude**, **a**, is half the distance from the max to min.

The **period**, , is how long a cycle is.

* The sine starts in the middle goes up then down then back up to the middle.
* The cosine starts at the top goes down and then all the way back up.

The **midline**, **k**, is the horizontal line that cuts the function in half.

Example 1:

Identify the midline, amplitude and period, then sketch one period of the graph.

|  |  |
| --- | --- |
| Midline =  Amplitude =  Period = |  |

Example 2:

|  |  |
| --- | --- |
| Midline =  Amplitude =  Period = |  |

Example 3:

Identify the midline, amplitude and period. Then write the equation for the function.

|  |  |
| --- | --- |
| Sine or Cosine?  Midline:  Amplitude:  Period: | Sine or Cosine:  Midline:  Amplitude:    Period: |