

Name (Print): \_\_\_\_\_

**Derive the Graph of the Derivative**

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1. Below, graph the function  $f(x) = \sin(x)$
2. Use the fact that the  $y$ -value of  $f'(x)$  is the slope of the tangent line of  $f(x)$  to plot estimate points for the function  $f'(x)$ . Then make a conjecture as to what the function  $f'(x)$  might be.
3. Use this applet <http://tube.geogebra.org/m/2235103> to determine if your conjecture was correct.
4. Try this out for 2 other functions. State your conclusions and discoveries below.