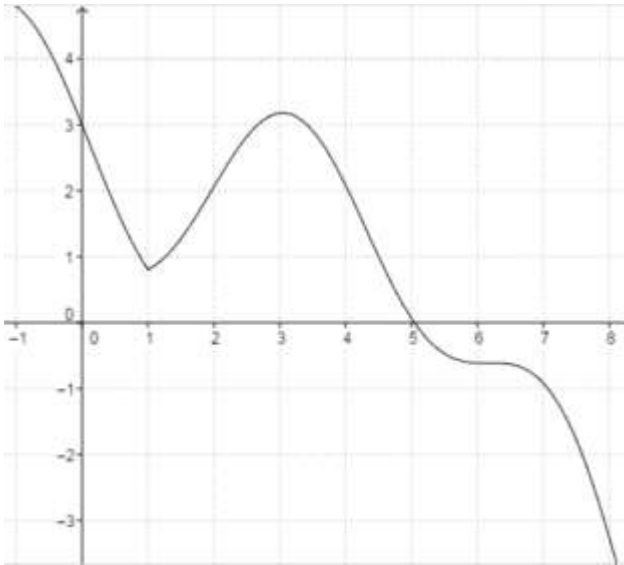


Visit <http://j.mp/calcgg>

Task 1: Applet 8



1. Move the blue point on the x -axis to change the value of c , and observe how the line tangent to the f -graph at $x = c$ changes. When is the slope of the tangent line greatest? lowest?

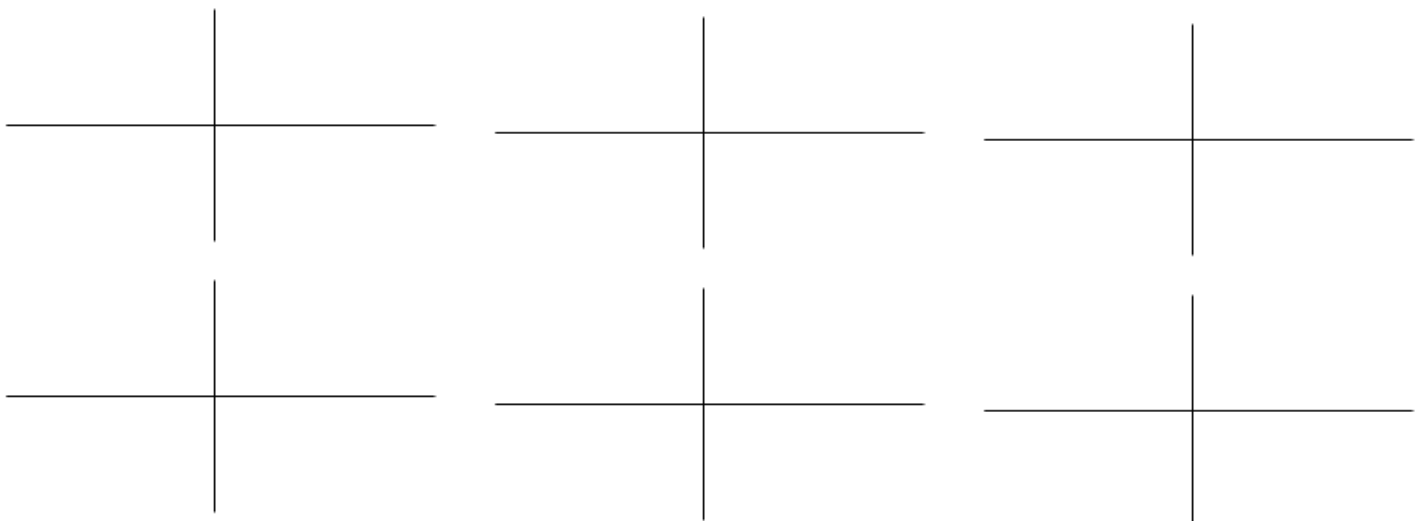
2. Can you find (at least) one value for c where the tangent line crosses the f -graph only once, at its point of tangency?

3. Check the box to see the point $(c, f'(c))$. What does the y -value of this red point represent?

4. Check the box to trace the red point. Now drag the blue point around. The resulting red graph is the graph of the derivative function. That is, it is the graph of the function f' . Use a colored pencil to graph the derivative graph on top of the given graph.

Task 2: Applet 9

In this applet we show some common functions and ask you to anticipate what the graph of their derivatives look like. If you want to graph a function other than the ones that are pre-loaded, you can do that as well. Click the check boxes and drag the blue point on the x -axis to make things happen. Select an example function from the drop-down box below the applet. See which parts of the graph have negative slope, positive slope and zero slope. Can you visualize what the derivative looks like? Graph a few here, using different colors for the original function and the derivative function.



Task 3: Applet 10

Read the instructions on the “Explore” part of the page. Record your results below! Try at least 4 graphs.

	Graph 1	Graph 2	Graph 3	Graph 4
First accuracy check %				

Task 4: Applet 12

The derivative matching game! Try ten problems and record your results here:

100

for correct,



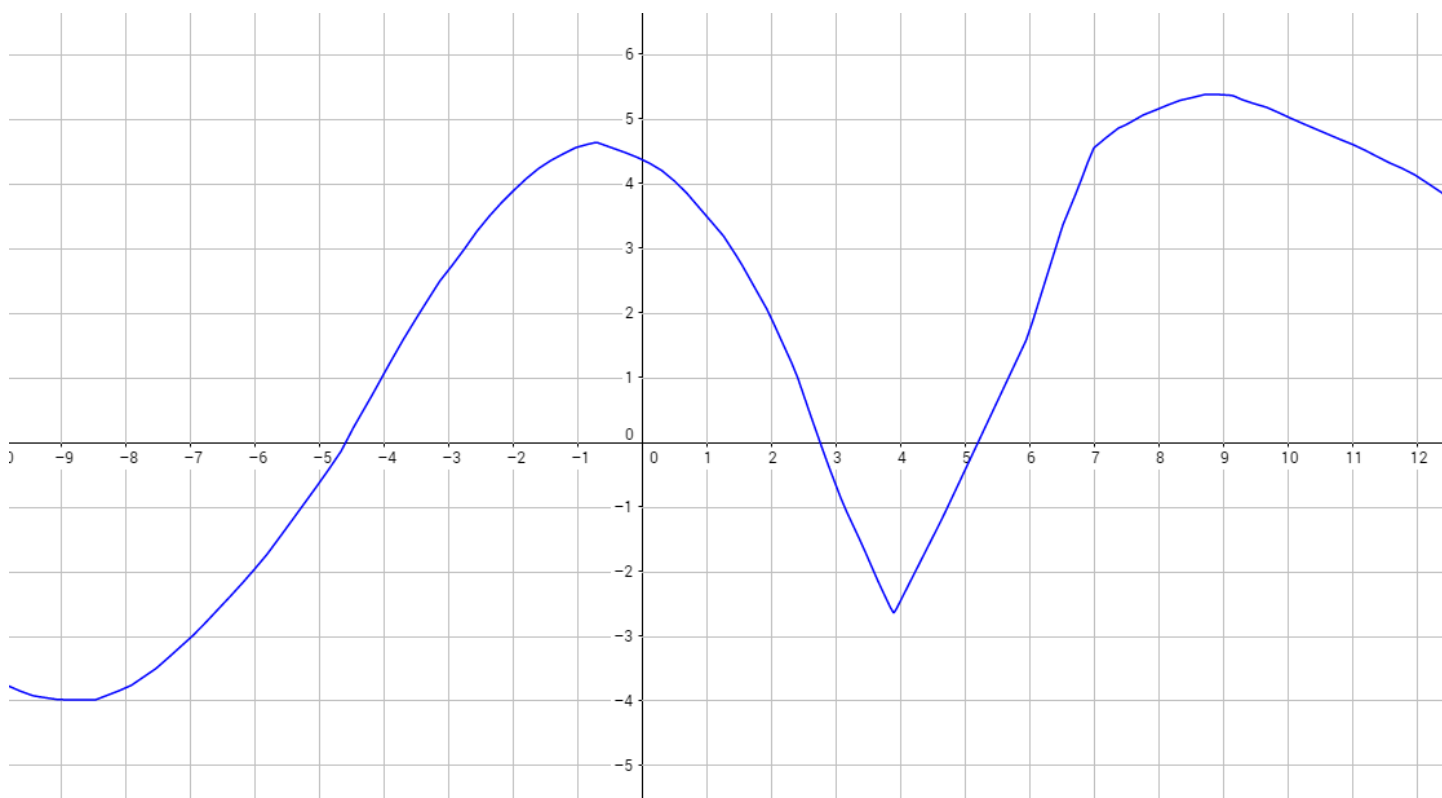
for incorrect

Graph 1	Graph 2	Graph 3	Graph 4	Graph 5	Graph 6	Graph 7	Graph 8	Graph 9	Graph10

Final score: /10

Task 5: Digital to Analog conversion

Here's $f(x)$. Graph $f'(x)$ on the same axes.



Challenge!!! Try applet 20....if you dare. Can you get above 90%? If so, submit it to me on Google Classroom!