LESSON 2.2

DERIVATIVE AS FUNCTION

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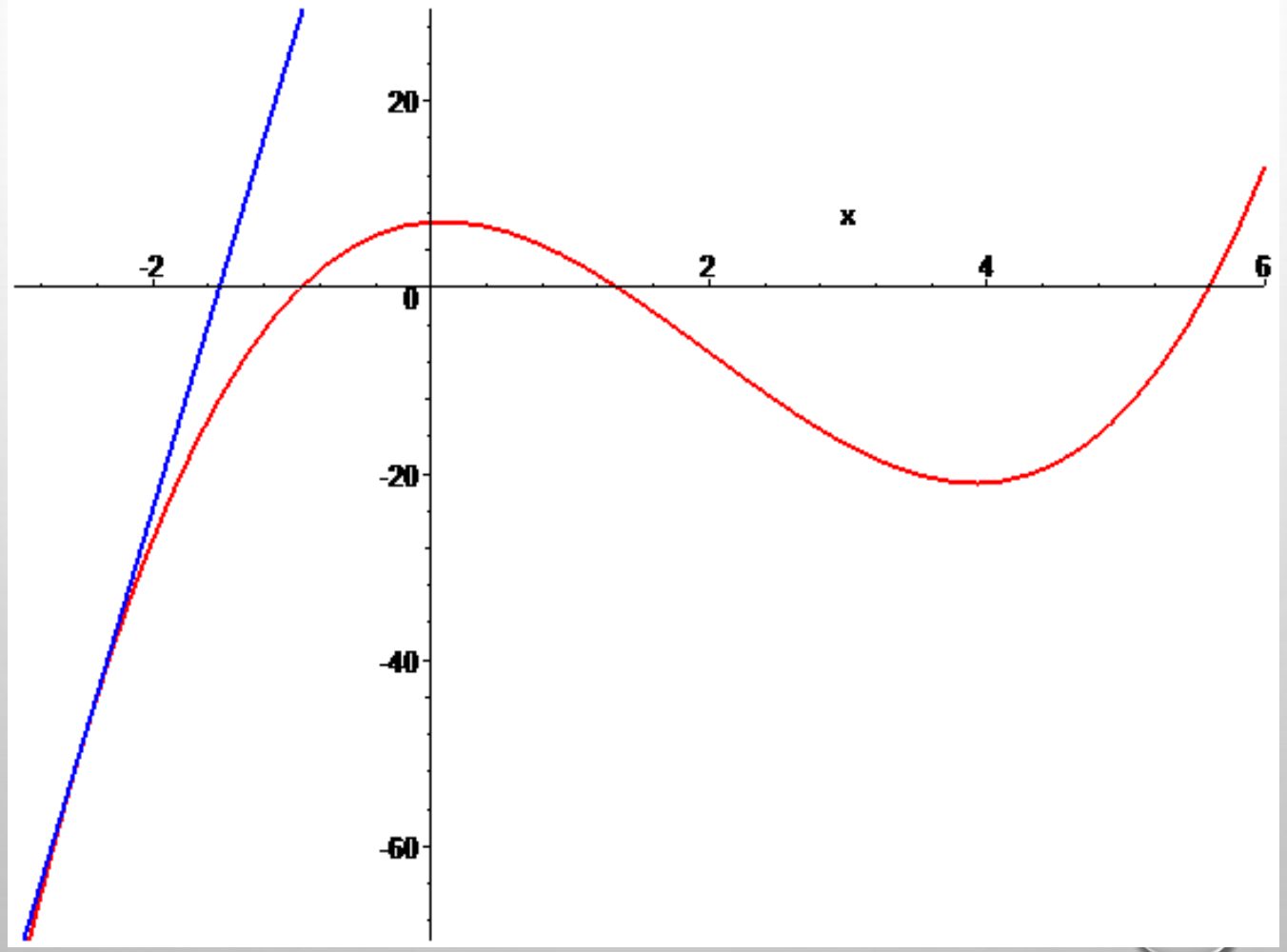
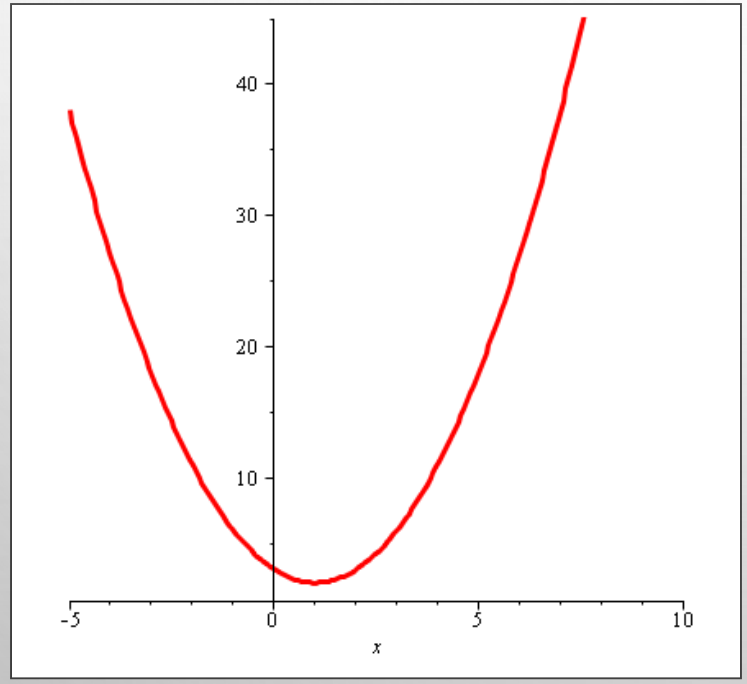
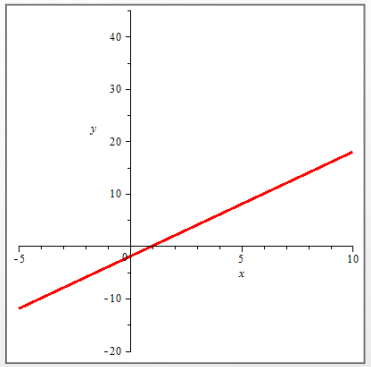
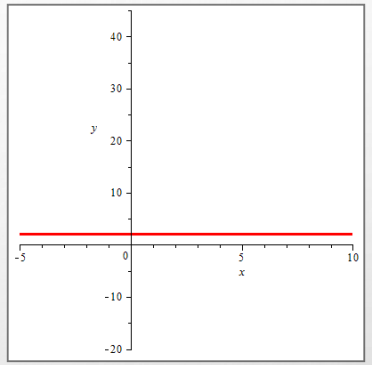


- If the graph (below left) is the graph of $y = f(x)$, which of the following (a, b, c, or d) is most likely the graph of $y = f'(x)$?

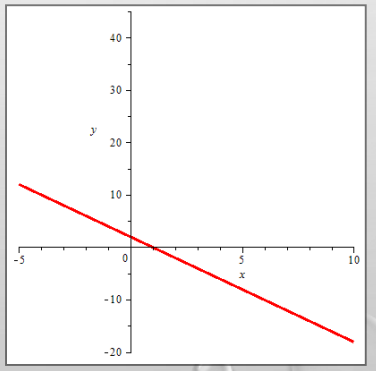




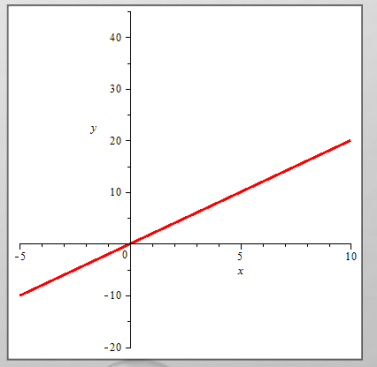
a



b



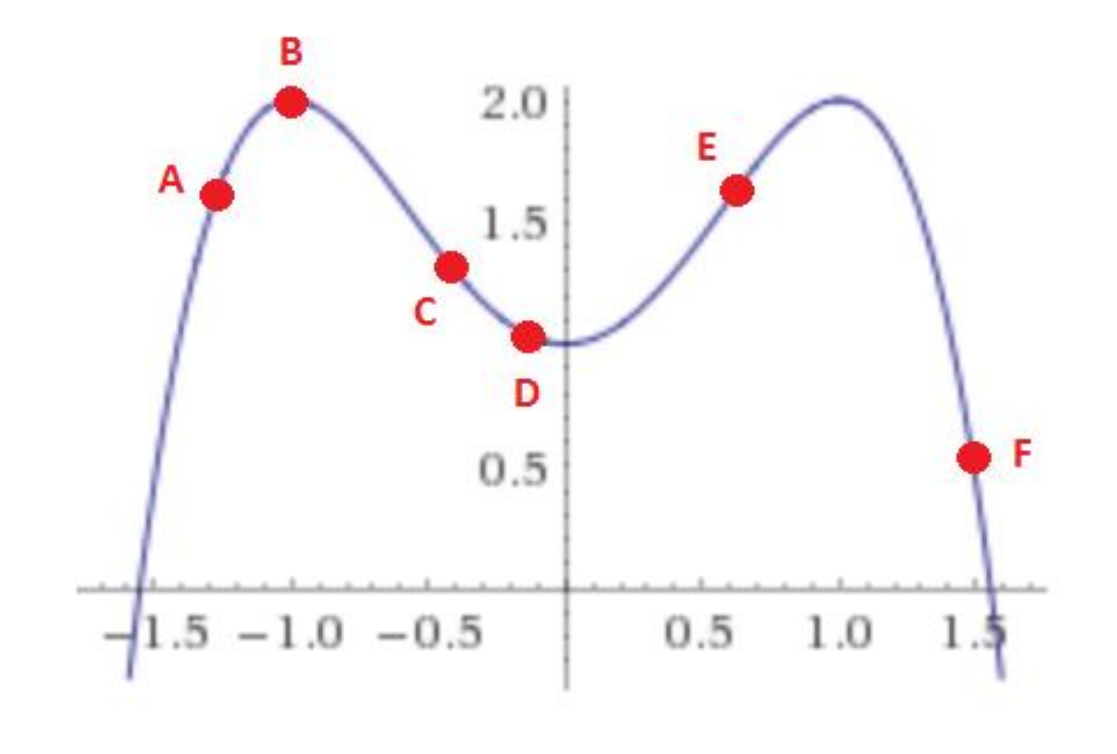
c



d

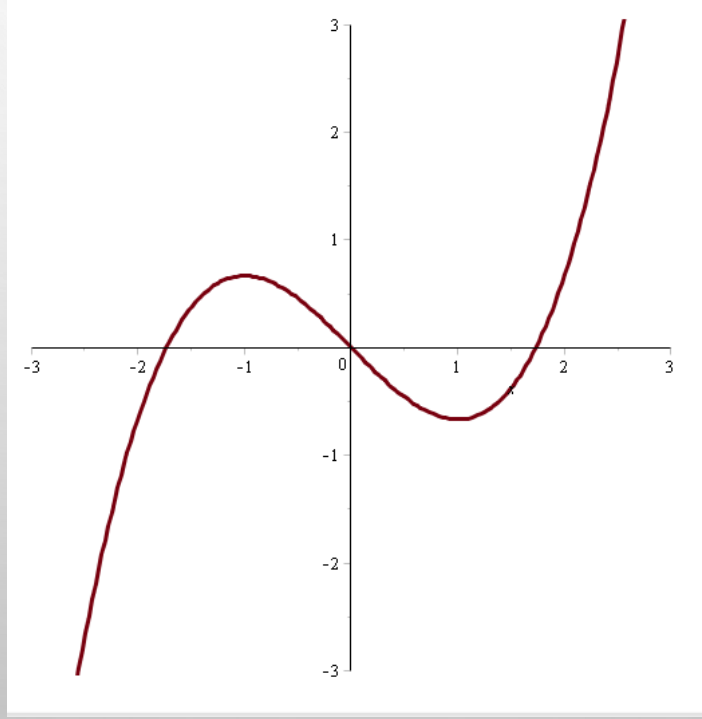
PROBLEM

CONSIDER THE SLOPE OF THE CURVE AT THE POINTS INDICATED BELOW. USING A-F, LIST THE SLOPES IN INCREASING ORDER.



PROBLEM

Consider the graph of $y = f(x)$ below. Use this to construct a graph of the derivative $y = f'(x)$.



PROBLEM

A rechargeable battery is plugged into its charger. The graph shows $C(t)$, the percentage of full capacity that the battery reaches as a function of time t elapsed (in hours).

(a) What is the meaning of $C'(t)$?

(b) Sketch the graph of $C'(t)$. Interpret.