3. Six graphs of functions are below, along with six graphs of derivatives. Match the graph of each function with the graph of its derivative.

Original Functions:

Answer: B   Answer: D   Answer: A

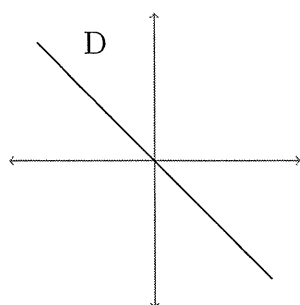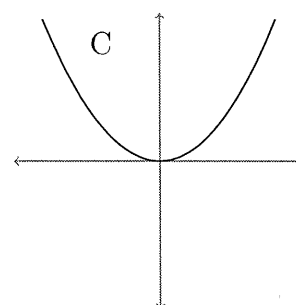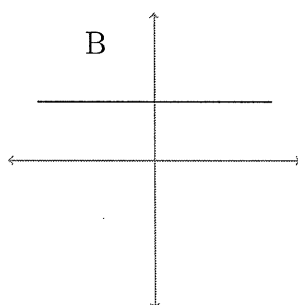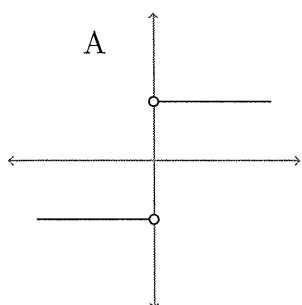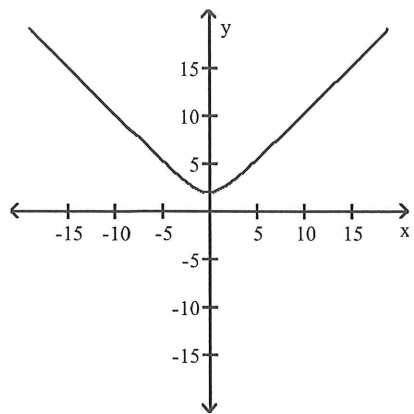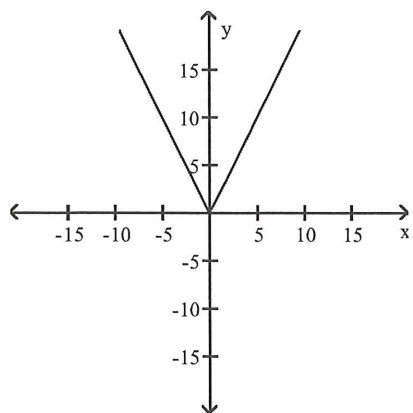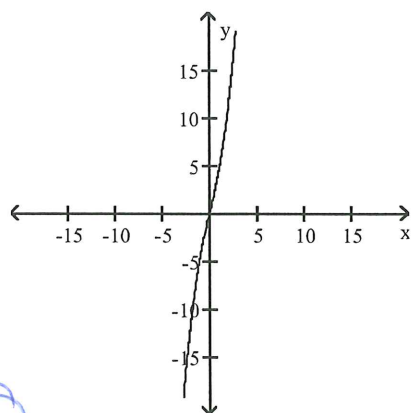Answer: F   Answer: C   Answer: E

Their derivatives:

A   B   C

D   E   F

4)

A)

B)

C)

D)

A-4
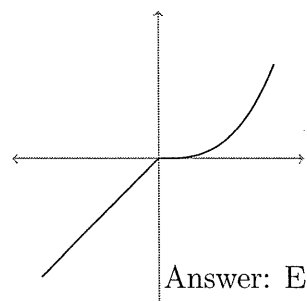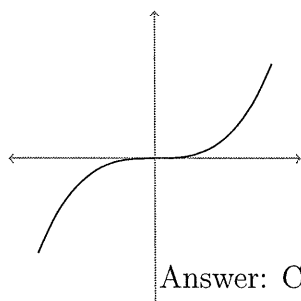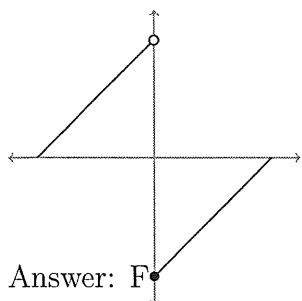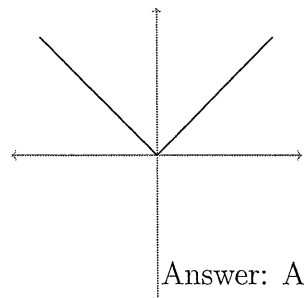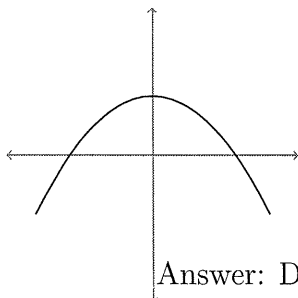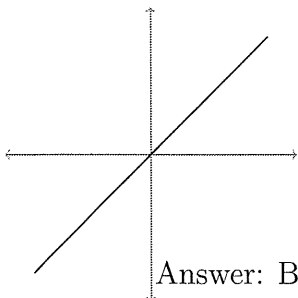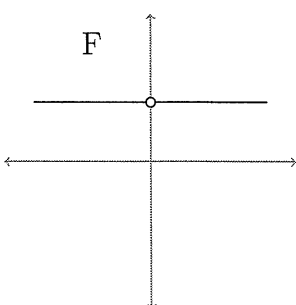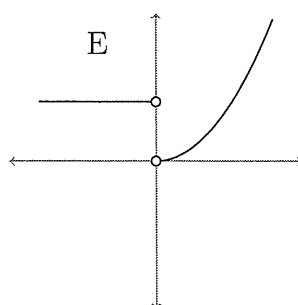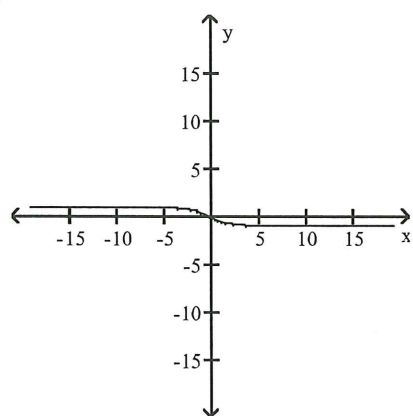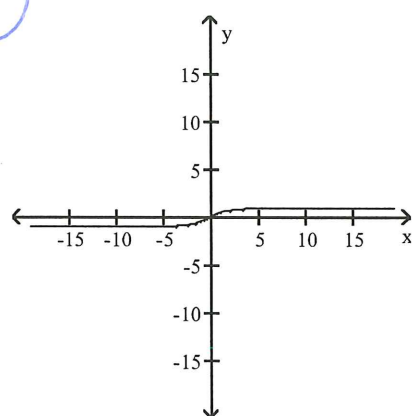
AP Calculus AB
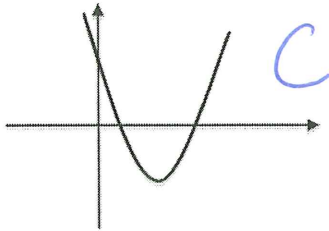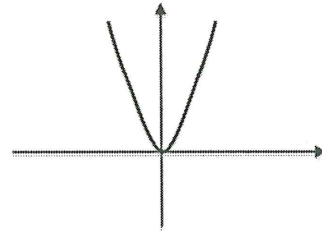
2.1 Worksheet

Name _____

Date _____Period _____

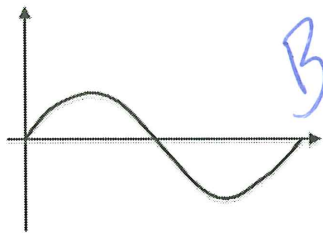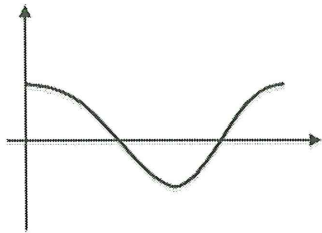*Part I. Match the graphs of functions I, II, and III to the graphs of their derivatives A, B, and C.*
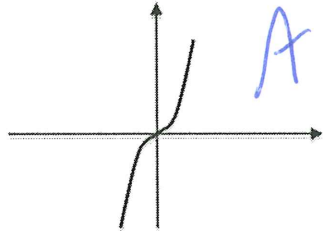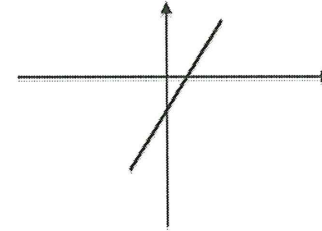
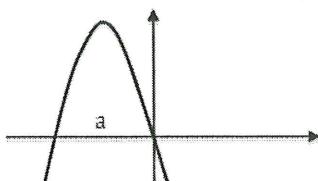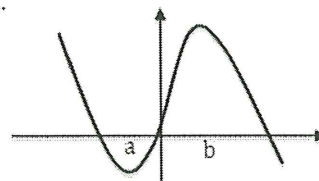I.   C

A.

II.   B

B.

III.   A

C.

Part II. Create a chart to show intervals on which the function is increasing/decreasing and on which the derivative is positive/negative. Sketch the graph of the derivative on the same set of axes as the function.
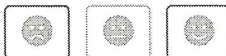
1.

2.

Is the category for this document correct?

1/2
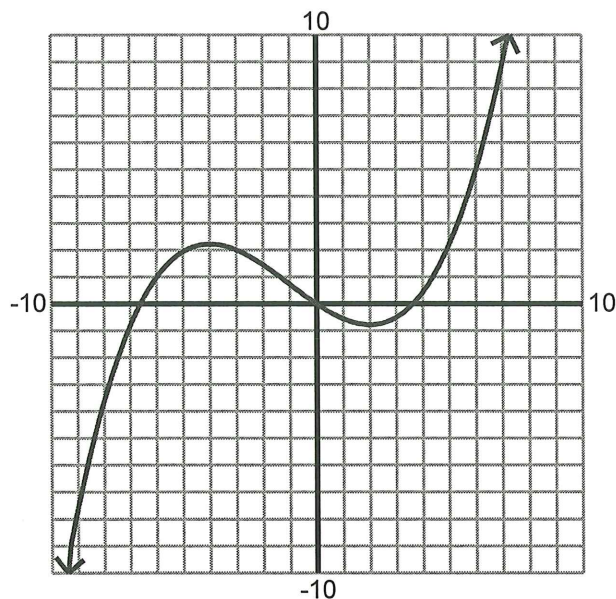
Graph Derivatives

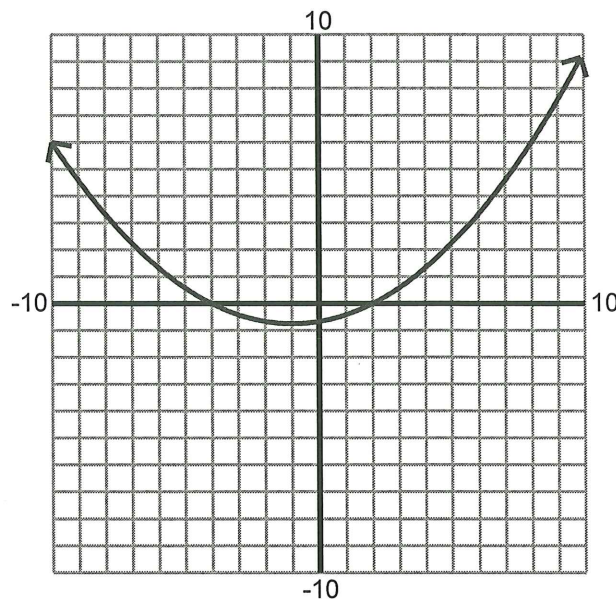**Using the graph of f(x), draw an approximate graph of f'(x).**
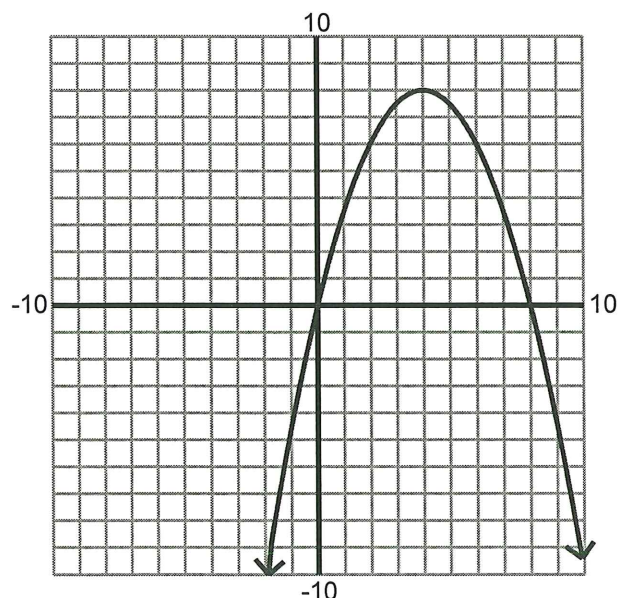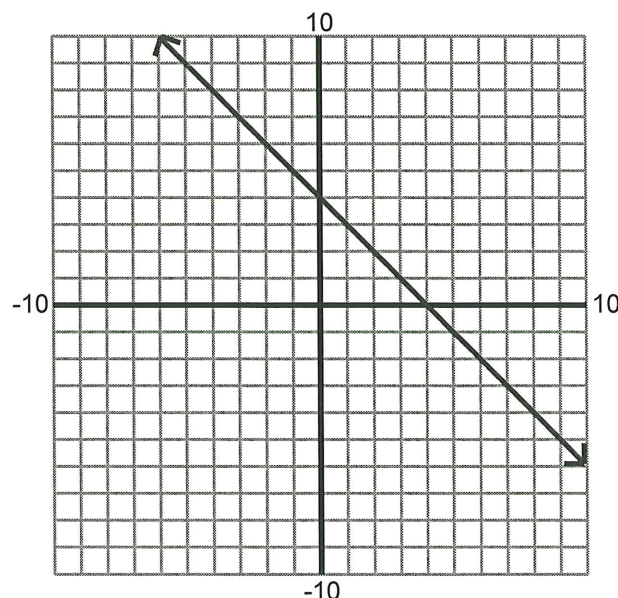
1) $f(x) = \frac{1}{36}x^3 + \frac{1}{12}x^2 - \frac{2}{3}x$ *Answer* →   f'(x)
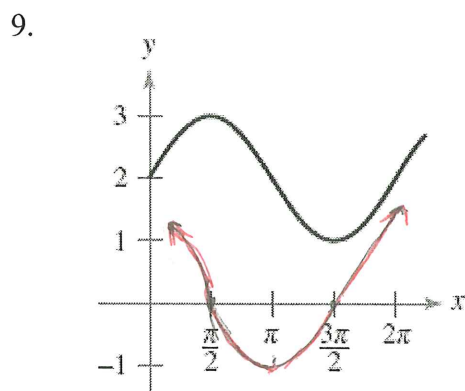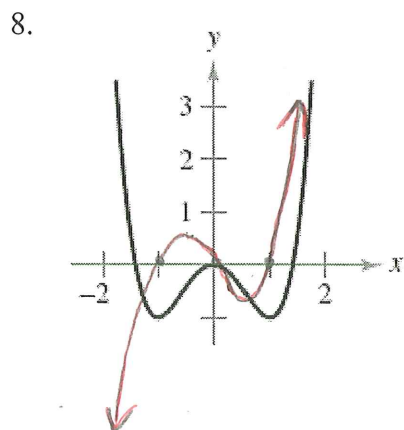

2) $f(x) = -\frac{1}{2}x^2 + 4x$ *Answer* →   f'(x)

The graph of _f_ is given below. Sketch a possible graph of _f '_ and _f "_.

5.

6.

7.

8.

9.

The graph of _f '_ is given below. Sketch a possible graph of _f_.

10.

11.

12.

13.