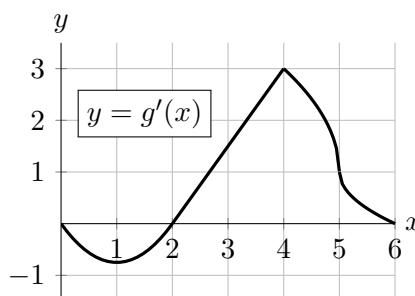
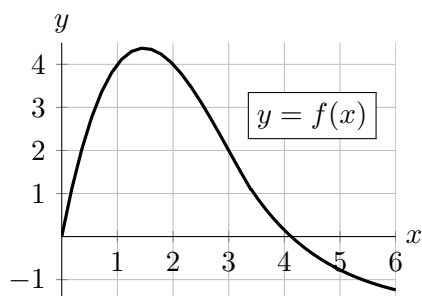


10. [9 points] The graph of the function $f(x)$ and the graph of $g'(x)$ (the derivative of the function g) are given below.



- a. [3 points] Rank these five quantities in order from least to greatest by filling in the blanks below with the options I–V.

I. the average rate of change of $f(x)$ from $x = 1$ to $x = 3$

II. $f'(3)$

III. the slope of the tangent line to $f(x)$ at $x = 1$

IV. $\frac{f(5) - f(0)}{5}$

V. the number 0

II < I < IV < V < III

- b. [2 points] On which of the following interval(s) is $f(x)$ invertible? Circle all correct choices.

(0,2)

(1,4)

(2,6)

NONE OF THESE

- c. [2 points] On which of the following interval(s) is $g(x)$ increasing? Circle all correct choices.

(1,3)

(2,5)

(5,6)

NONE OF THESE

- d. [2 points] At which value of x , for $0 < x < 6$, is the slope of $g(x)$ most negative?

Answer: $x =$ 1