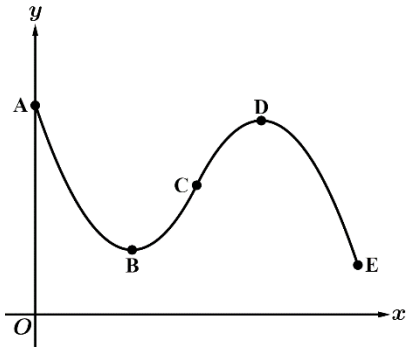


Graph of f

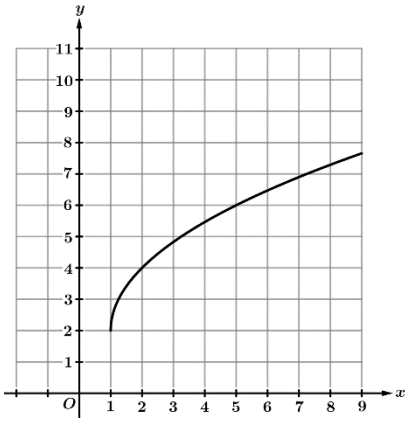
1. The figure above shows the graph of a function f .The extrema and the point of inflection of f are labeled. A, B, C, D, and E represent the x-coordinates at those points. Of the following, on which interval is f decreasing and the graph of f concave up?

(A) the interval from A to B

(B) the interval from B to C

(C) the interval from C to D

(D) the interval from D to E



Graph of g

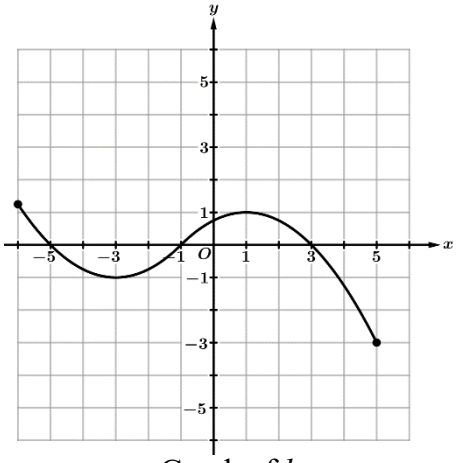
2. The graph of the function g is shown in the figure above. Which of the following best describes the function g over the interval $1 < x < 9$.

(A) The function g is increasing at an increasing rate.

(B) The function g is increasing at a decreasing rate. because the graph of g is concave down.

(C) The function g is decreasing at an increasing rate.

(D) The function g is decreasing at a decreasing rate.



Graph of h

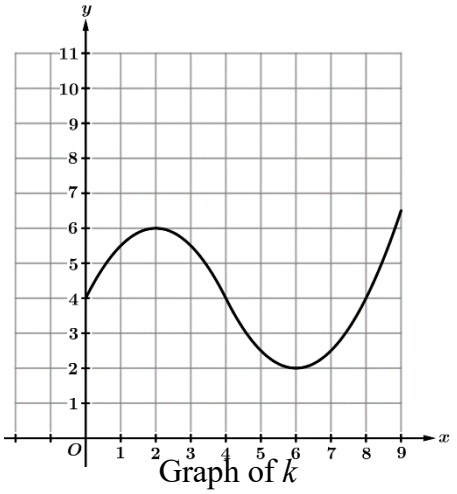
3. The graph of the function h is shown in the figure above on the interval $-6 \le x \le 5$. On which of the following intervals is the rate of change of h negative?

(A) $(-5,-1)$ and $(3,5)$

(B) $(-1,5)$

(C) $(1,5)$ only

(D) $(-6,-3)$ and $(1,5)$



Graph of k

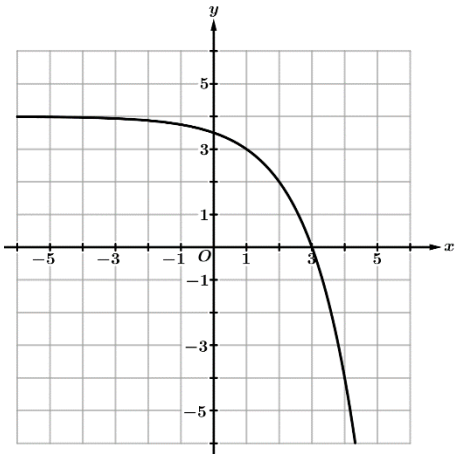
4. The graph of a function k is shown in the figure for $0 \le x \le 9$. What are all the intervals of x on which the rate of change of k is negative and decreasing?

(A) $(2,6)$

(B) $(0,4)$

(C) $(2,4)$

(D) $(4,6)$



Graph of p

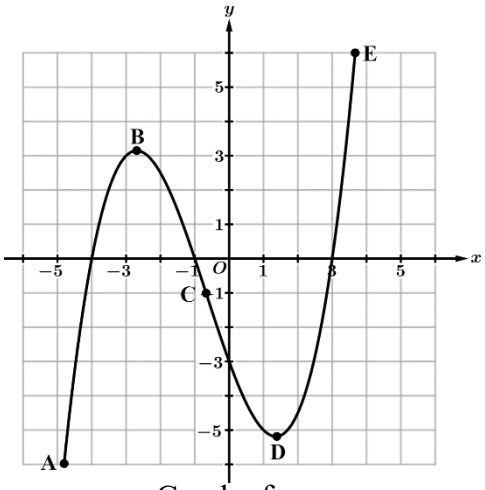
5. The graph of a function p is shown in the figure. Which of the following best describes the rate of change of p ?

(A) The rate of change of p is positive and increasing.

(B) The rate of change of p is positive and decreasing.

(C) The rate of change of p is negative and increasing.

(D) The rate of change of p is negative and decreasing. because the graph of p is decreasing and concave down.



Graph of g

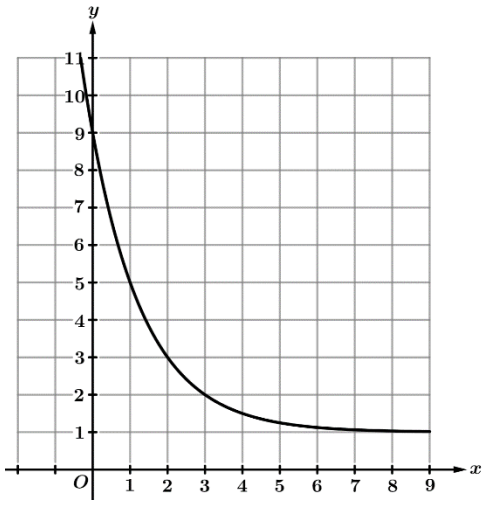
6. The figure shows the graph of a function g. The extrema for g are labeled, and the point of inflection of the graph of g is labeled. A, B, C, D and E represent the x-coordinates at those points. Of the following, on which intervals is the rate of change of g decreasing?

(A) the interval from A to B only

(B) the interval from B to C only

(C) the interval from A to C because the graph of g is concave down.

(D) the interval from B to D



Graph of h

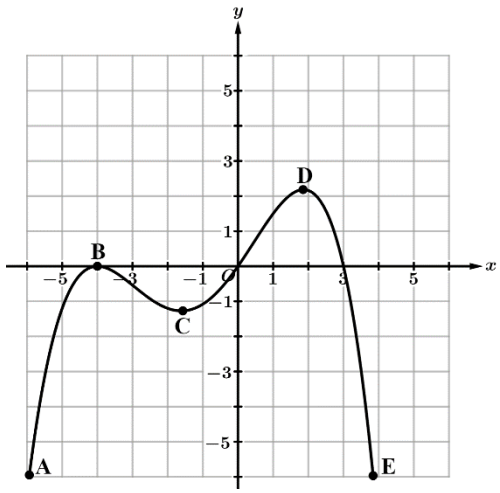
7. The figure shows the graph of a function h. Which of the following statements about h is true?

(A) The function h is negative.

(B) The function h is increasing.

(C) The rate of change of h is positive.

(D) The rate of change of h is increasing. because the graph of h is concave up.



Graph of h

8. The graph of the function h is shown in the figure above. The extrema for h are labeled where A, B, C, D, and E represent the x-coordinates at those points. What are all the intervals of x on which h is decreasing?

(A) the interval from A to B and the interval from C to D

(B) the interval from B to C only

(C) the interval from D to E only

(D) the interval from B to C and the interval from D to E