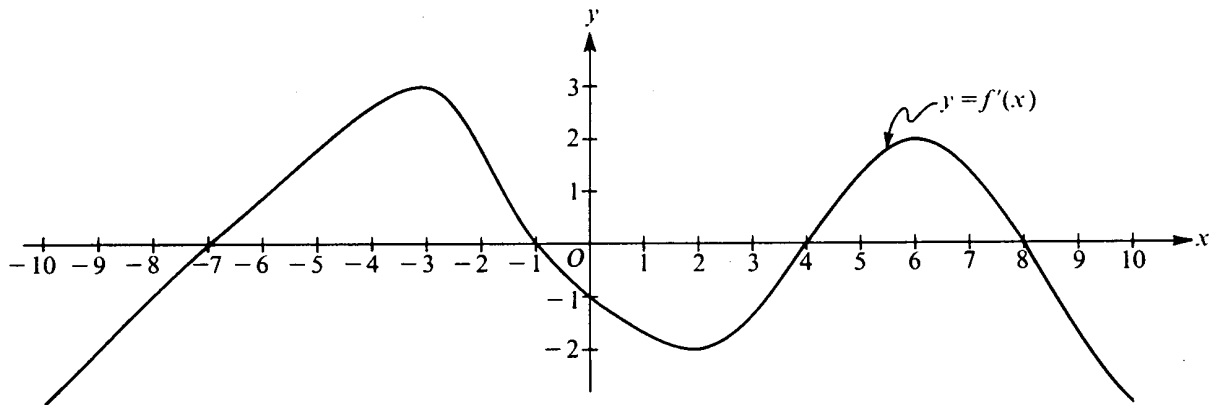


1989 AB5



Note: This is the graph of the derivative of  $f$ , not the graph of  $f$ .

The figure above shows the graph of  $f'$ , the derivative of a function  $f$ . The domain of  $f$  is the set of all real numbers  $x$  such that  $-10 \leq x \leq 10$ .

- (a) For what values of  $x$  does the graph of  $f$  have a horizontal tangent?
- (b) For what values of  $x$  in the interval  $(-10, 10)$  does  $f$  have a relative maximum?  
Justify your answer.
- (c) For value of  $x$  is the graph of  $f$  concave downward?