

AB+BC

1. Match the points labeled on the curve in Figure 2.6 with the given slopes.

Slope	Point
-3	
-1	
0	
1/2	
1	
2	

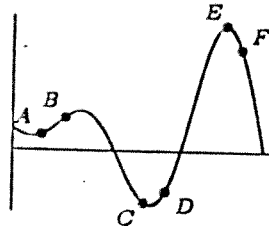


Figure 2.6

2. For the function shown in Figure 2.7, at what labeled points is the slope of the curve positive? Negative? Which labeled point has the greatest (i.e., most positive) slope? The least slope (i.e., negative and with the largest magnitude)?

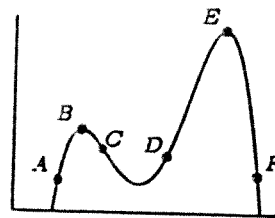


Figure 2.7

3. For the graph  $y = f(x)$  shown in Figure 2.8, arrange the following numbers in ascending (i.e., smallest to largest) order:

- The slope of the curve at A.
- The slope of the curve at B.
- The slope of the curve at C.
- The slope of the line AB.
- The number 0.
- The number 1.

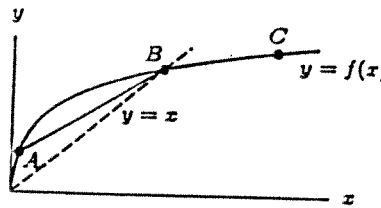


Figure 2.8

4. Draw a possible graph of  $y = f(x)$  given the following information about its derivative.

- $f'(x) > 0$  on  $1 < x < 3$
- $f'(x) < 0$  for  $x < 1$  and  $x > 3$
- $f'(x) = 0$  at  $x = 1$  and  $x = 3$

5. Draw a possible graph of  $y = f(x)$  given the following information about its derivative.

- $f'(x) > 0$  for  $x < -1$
- $f'(x) < 0$  for  $x > -1$
- $f'(x) = 0$  at  $x = -1$

6. In the graph of  $f$  in Figure 2.26, at which of the labeled  $x$  values is  
 (a)  $f(x)$  greatest? (b)  $f(x)$  least? (c)  $f'(x)$  greatest? (d)  $f'(x)$  least?

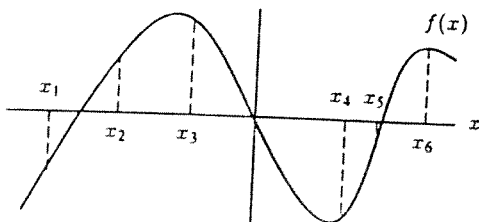


Figure 2.26