



① Where is  $f(x)$  increasing?  
 $A \rightarrow B, B \rightarrow C, D \rightarrow E$

② What can be said about  $f'(x)$  in the above intervals?  
 It is positive  $f'(x) > 0$

③ Where is  $f(x)$  decreasing?  
 $-\infty \rightarrow A, C \rightarrow D, E \rightarrow \infty$

④ What can be said about  $f'(x)$  in these intervals?  
 It is negative  $f'(x) < 0$

⑤ What is the value of  $f'(x)$  between each interval?

At  $A, B, C, D$   $f'(x) = 0$

At  $E$ ,  $f'(x)$  Does not exist