

6. (10 points) On the axes below, sketch a possible graph of a single function,  $y = f(x)$ , given that: [Be sure to show appropriate labels on the  $x$  axis.]

- $f$  is defined and continuous for all real  $x$
- $f$  has critical points at  $x = -1$  and  $x = 3$
- $f$  is decreasing for  $x < 3$
- $f'(x) > 0$  for  $x > 3$
- $f$  has inflection points at  $x = -1$  and  $x = 1$
- $f''$  is positive for  $x < -1$

