

1989 AB5
Solution

(a) horizontal tangent $\Leftrightarrow f'(x) = 0$

$$x = -7, -1, 4, 8$$

(b) Relative maxima at $x = -1, 8$ because f' changes from positive to negative at these points

(c) f concave downward $\Leftrightarrow f'$ decreasing

$$(-3, 2), (6, 10)$$