9. [12 points] A function $p(x)$ is continuous on $(-\infty, \infty)$. Part of its derivative $p'(x)$ is shown below.

a. [2 points] At which of the following $x$-value(s) does $p(x)$ have a critical point?

-8  -3  -2  1  7

b. [2 points] At which of the following $x$-value(s) does $p(x)$ have a local minimum?

-8  -4  -3  0  3

c. [2 points] On which of the following interval(s) is $p(x)$ increasing on the entire interval?

$(-4, -3)$  $(-3, 0)$  $(1, 2)$  $(3, 7)$

d. [2 points] On which of the following interval(s) is $p(x)$ concave up on the entire interval?

$(-5, -3)$  $(0, 1)$  $(3, 7)$  $(7, 9)$

e. [2 points] On which of the following interval(s) is the product $p'(x) \cdot p''(x)$ negative on the entire interval?

$(-5, -4)$  $(-2, 0)$  $(1, 3)$  $(3, 5)$

f. [2 points] At which of the following $x$-value(s) does $p(x)$ have both a local extremum and an inflection point?

-7  -5  -3  0  3  NONE OF THESE