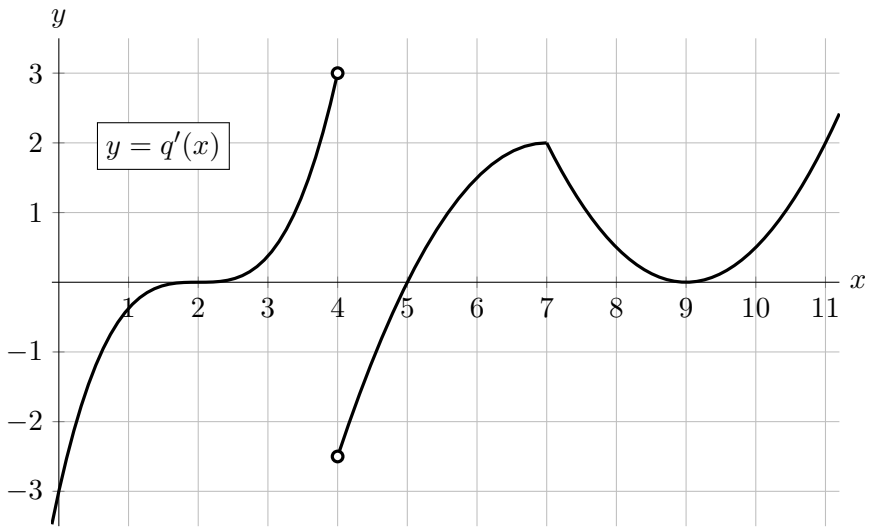
9. [12 points] Let $q(x)$ be a continuous function which is defined for all real numbers. A portion of the graph of $q'(x)$, **the derivative of $q(x)$**, is shown below.



For each of the following, circle all correct choices.

a. [2 points] On which of the following interval(s) is $q(x)$ increasing?

$(0, 2)$ $(2, 4)$ $(7, 9)$ NONE OF THESE

b. [2 points] Which of the following are critical point(s) of $q(x)$?

$x = 4$ $x = 5$ $x = 7$ NONE OF THESE

c. [2 points] At which of the following value(s) of x does $q(x)$ have a local maximum?

$x = 4$ $x = 5$ $x = 7$ NONE OF THESE

d. [2 points] On which of the following interval(s) is $q''(x)$ positive?

$(0, 2)$ $(2, 4)$ $(7, 9)$ NONE OF THESE

e. [2 points] At which of the following value(s) of x does $q(x)$ have an inflection point?

$x = 2$ $x = 7$ $x = 9$ NONE OF THESE

f. [2 points] At which of the following value(s) of x does $q'(x)$ have an inflection point?

$x = 2$ $x = 7$ $x = 9$ NONE OF THESE