QUIZ 7

NAME:__________________________

Section 2.3

18. Figure 2.31 shows the length, \( L \), in cm, of a sturgeon (a type of fish) as a function of the time, \( t \), in years. Estimate \( f'(10) \). Give units and interpret your answer.

![Figure 2.31](image)

Section 2.4

1. For the function graphed in Figure 2.42, are the following nonzero quantities positive or negative?

   (a) \( f(2) \)  (b) \( f'(2) \)  (c) \( f''(2) \)

![Figure 2.42](image)
Section 2.4

In Problems 10–11, use the graph given for each function.

(a) Estimate the intervals on which the derivative is positive and the intervals on which the derivative is negative.

(b) Estimate the intervals on which the second derivative is positive and the intervals on which the second derivative is negative.

10.