

- i. Show all relevant work. No work, no credit.
- ii. Write your answers in the spaces provided on the right.
- iii. Staple when you turn in the assignment.
- iv. Due Wednesday, October 8 at the beginning of the class.

For the function, find the average rate of change from $x = 1$ to $x = 5$.

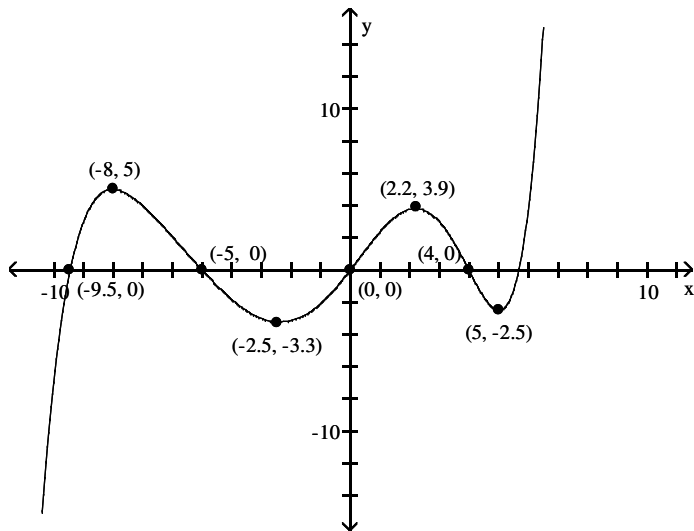
1) $f(x) = 4x^3 - 8x^2 - 1$

Apply the Difference Quotient to the given function.

2) $f(x) = \frac{7}{x+6}$

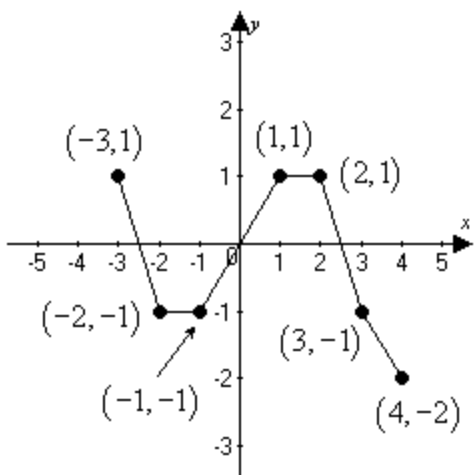
The graph of a function is given. State any Local Maximums and Local Minimums.

3)



Use the graph to find the intervals on which it is increasing, decreasing, or constant.

4)



Apply the Difference Quotient to the given function.

5) $f(x) = \sqrt{2x - 1}$