3.3 Rates of Change and Behavior of Graphs Practice

Work with a partner to discuss the pre-class questions.

Answer in complete sentences, as appropriate.

1. What does "average rate of change" mean?

2. How can you find the average rate of change? Consider the following question.

3. Find the average rate of change of the function $f(x) = 6 - 2x^2$ on the interval $[-2, 4]$.

4. Find the average rate of change of the function $f(x) = 3x^2 - 1$ on the interval $[x, x + h]$
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5. Describe the process of determining where a function is increasing/decreasing from a graph. Consider the following question for your answer.

6. Determine the intervals where the function is increasing or decreasing. Also, determine the location of local (relative) extrema.