First Derivative Test

Concavity also
• Find the critical points and the intervals on which the function is increasing or decreasing.

• Use the First Derivative Test information to determine whether the critical point(s) is/are a local minimum or local maximum or neither.

• Use the second derivative to determine the intervals of concavity

\[ f(x) = -2x^3 + 6x^2 - 3 \]