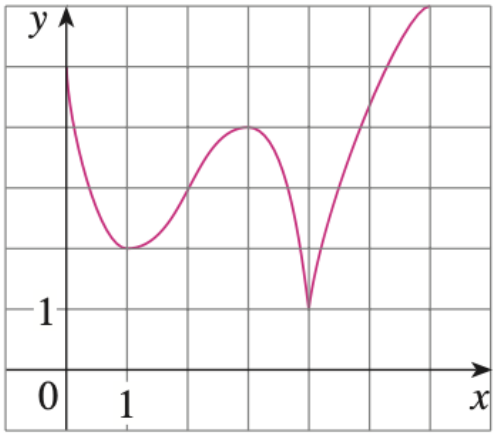
Reading Stewart §3.1, 3.3.

1. Use the Closed Interval Method to find the absolute maximum and absolute minimum values of $f(x) = -24 + 54x - 2x^3$ on the interval $[0, 4]$.

2. Use the Closed Interval Method to find the absolute maximum and absolute minimum values of $g(t) = 3t^4 - 4t^3 - 12t^2 + 3$ on the interval $[-2, 2]$.

3. Use the Closed Interval Method to find the absolute maximum and absolute minimum values of $h(x) = x\sqrt{4 - x^2}$ on the interval $[-1, 2]$.

4. Use the given graph of f to find the following.
   (a) The open intervals on which f is increasing.
   (b) The open intervals on which f is decreasing.
   (c) The open intervals on which f is concave upward.
   (d) The open intervals on which f is concave downward.
   (e) The coordinates of the points of inflection.



5. The graph of the *derivative* f' of a function f is shown.
   (a) On what intervals is f increasing or decreasing?
   (b) At what values of x does f have a local maximum or minimum?