

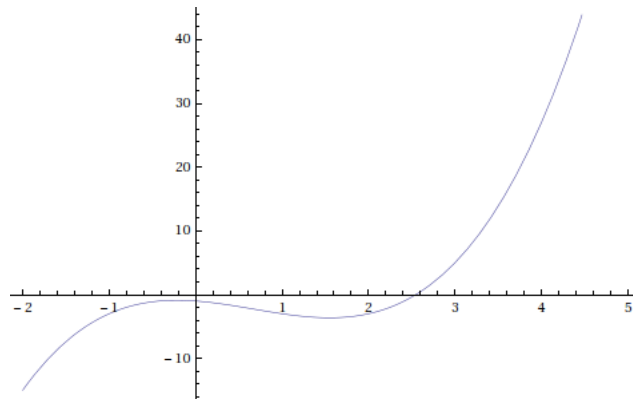
Problem 1. Use your graphing calculator to graph the function $f(x) = x^3 - 2x^2 - x - 1$. Find each of the following, to 2 decimal places. (6 points.)

(a) x -intercept:

$$\left(\frac{2}{3} + \frac{1}{3} \sqrt[3]{\frac{61}{2} - \frac{9\sqrt{29}}{2}} + \frac{1}{3} \sqrt[3]{\frac{1}{2}(61 + 9\sqrt{29})}, 0 \right) \approx (2.55, 0)$$

(b) decreasing interval:

$$\left(\frac{1}{3}(2 - \sqrt{7}), \frac{1}{3}(2 + \sqrt{7}) \right) \approx (-0.22, 1.55)$$



Problem 2. Given the graph of the function $f(x) = x^3 - 2x^2 - x - 1$ above, sketch the graph of $g(x) = f(-x)$. (4 points.)

