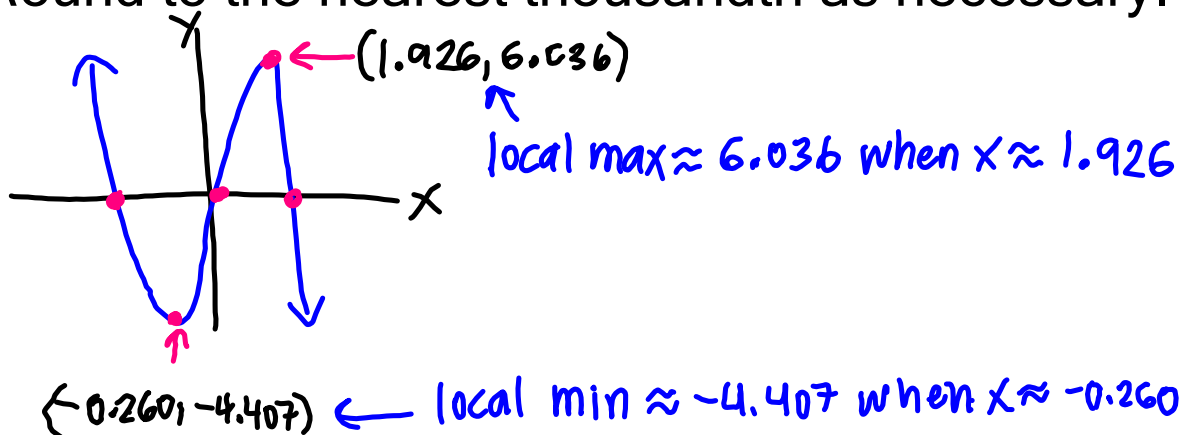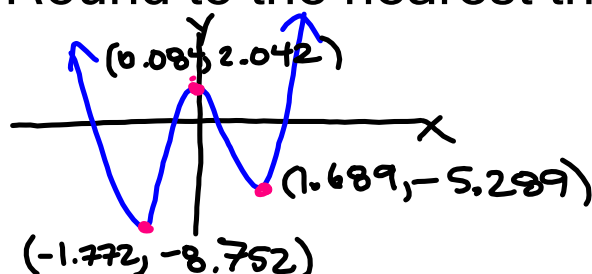## Example 3

Use a graphing calculator and draw a rough sketch of the graph of $y = -2x^3 + 5x^2 + 3x - 4$. Identify the x-intercepts and any points where local maximums or local minimums occur. Round to the nearest thousandth as necessary.

$(1.926, 6.036)$

local max ≈ 6.036 when $x \approx 1.926$

$(-0.260, -4.407)$ ⟵ local min ≈ -4.407 when $x \approx -0.260$

Example 4

Use a graphing calculator and draw a rough sketch of the graph of $y = x^4 - 6x^2 + x + 2$. Identify the x-intercepts and any points where local maximums or local minimums occur. Round to the nearest thousandth as necessary.

$(0.084, 2.042)$

$(1.689, -5.289)$

$(-1.772, -8.752)$

local min ≈ -8.752 when $x \approx -1.772$

local max ≈ 2.042 when $x \approx 0.084$

local min ≈ -5.289 when $x \approx 1.689$