Curve Sketching

Goal: • Can graph a polynomial accurately to include local extrema, inflection points, correct concavity and slope and correct y-intercept and zeros.
Terminology: • None
Reminder: • Test on Wednesday February 25th

Find the local extrema, inflection points and zeros of the following polynomial.

$$f(x) = \frac{x^4}{4} - x^3 + 3$$

Extrema at $x = \cdots$	Inflection points at $x = \cdots$	Zeros at $x = \cdots$

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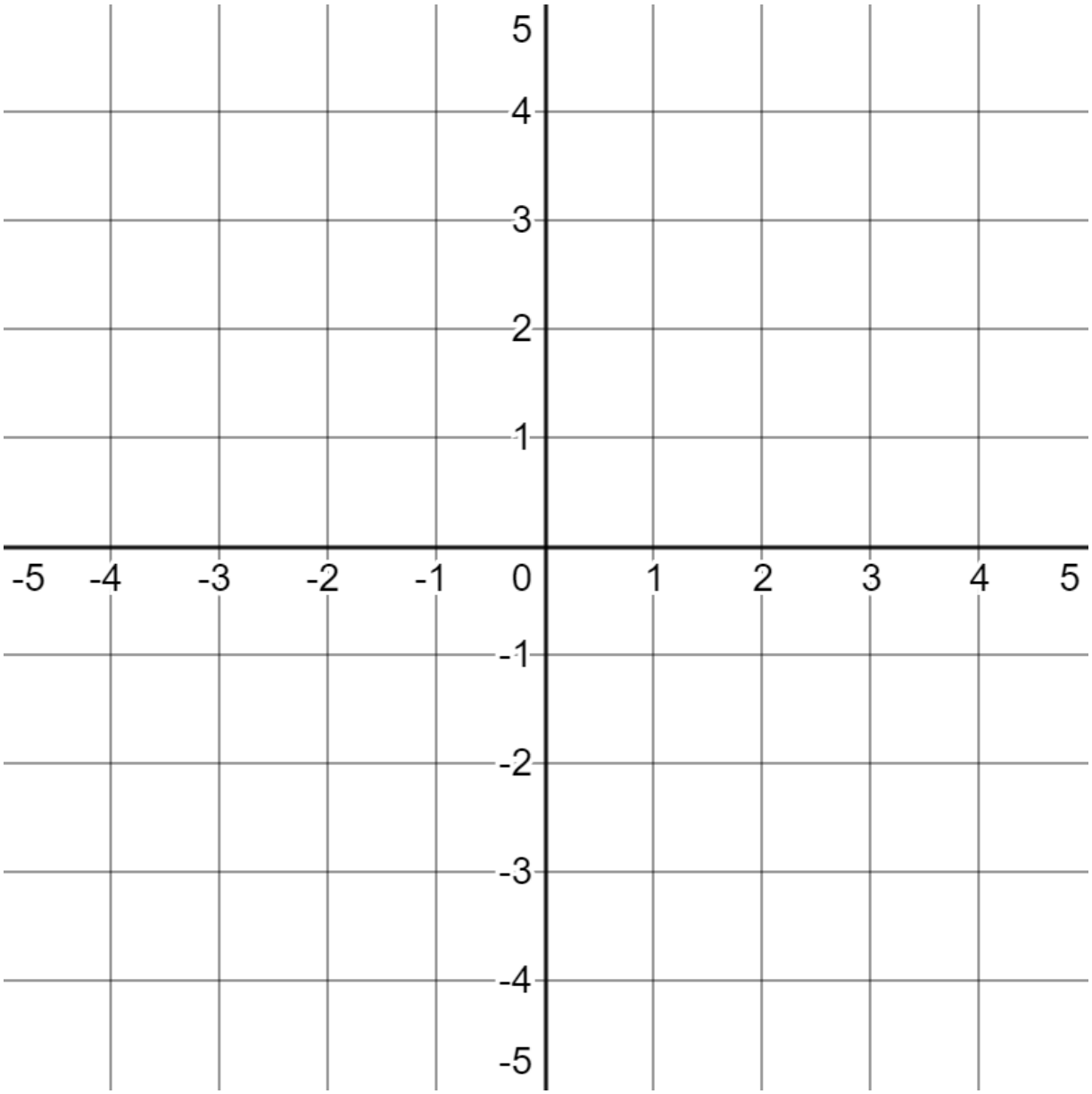
Putting it all together we can sketch a very good looking polynomial.



Practice Problems: 5.5: # 2, 4, 6-9, 12 Sketch the graphs with correct intercepts, asymptotes, local extrema and inflection points.

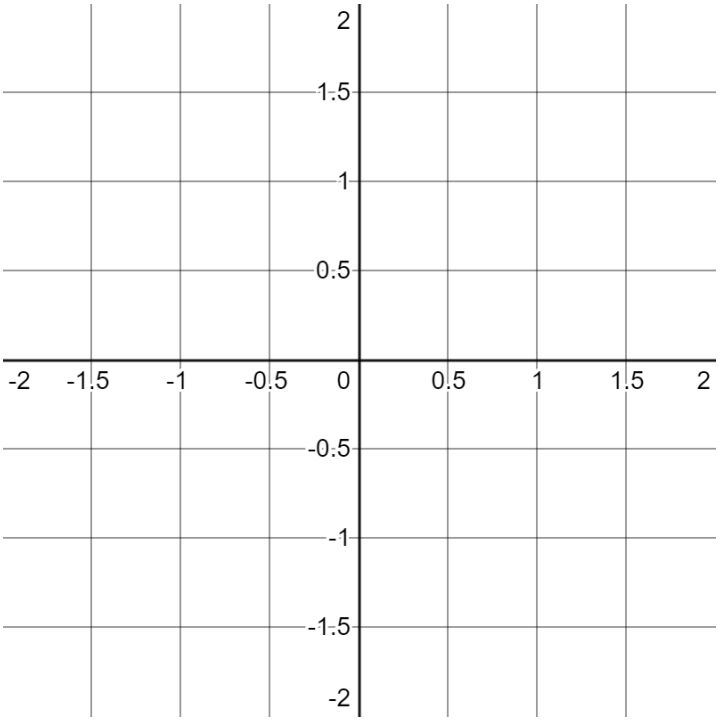
5.7: # 5-7

In Class Evidence

Sketch the graphs with correct intercepts, asymptotes, local extrema and inflection points.

2.

$$y = (x^2 - 1)^3$$



4.

$$y = \frac{x^2}{x^2 + 3}$$