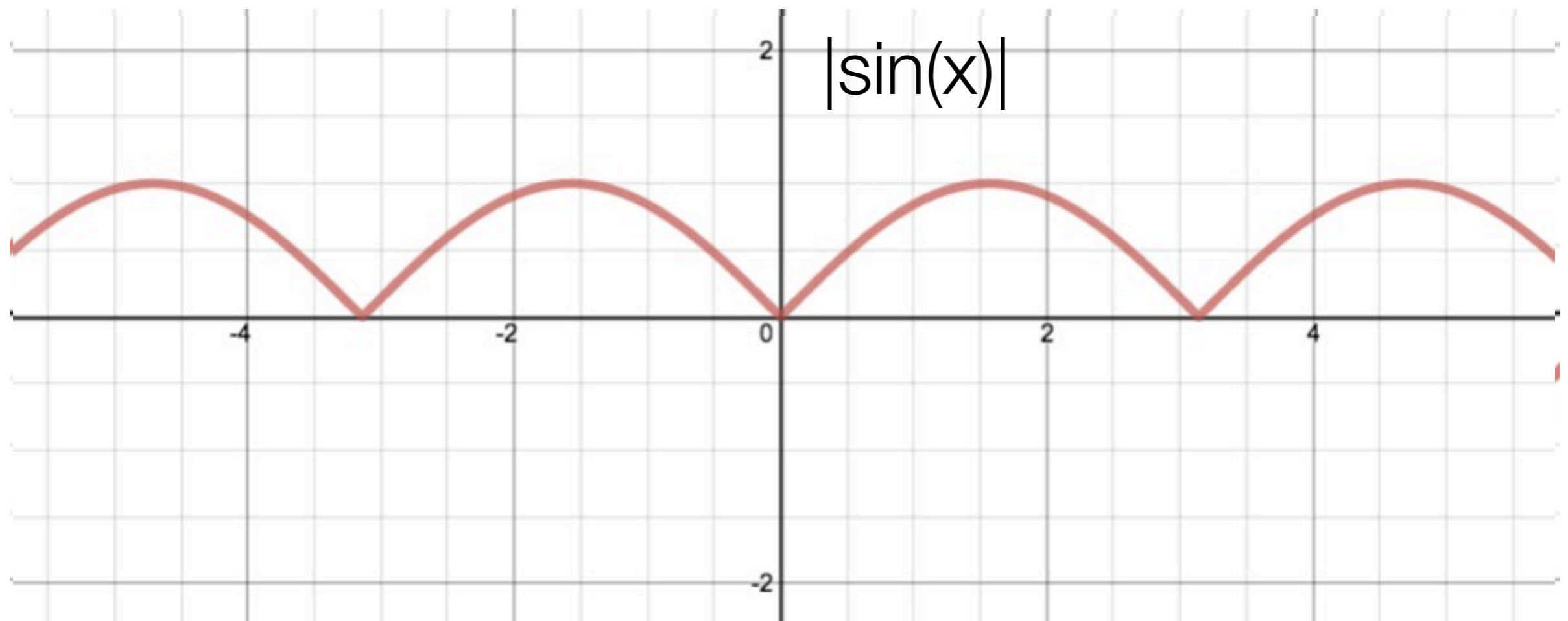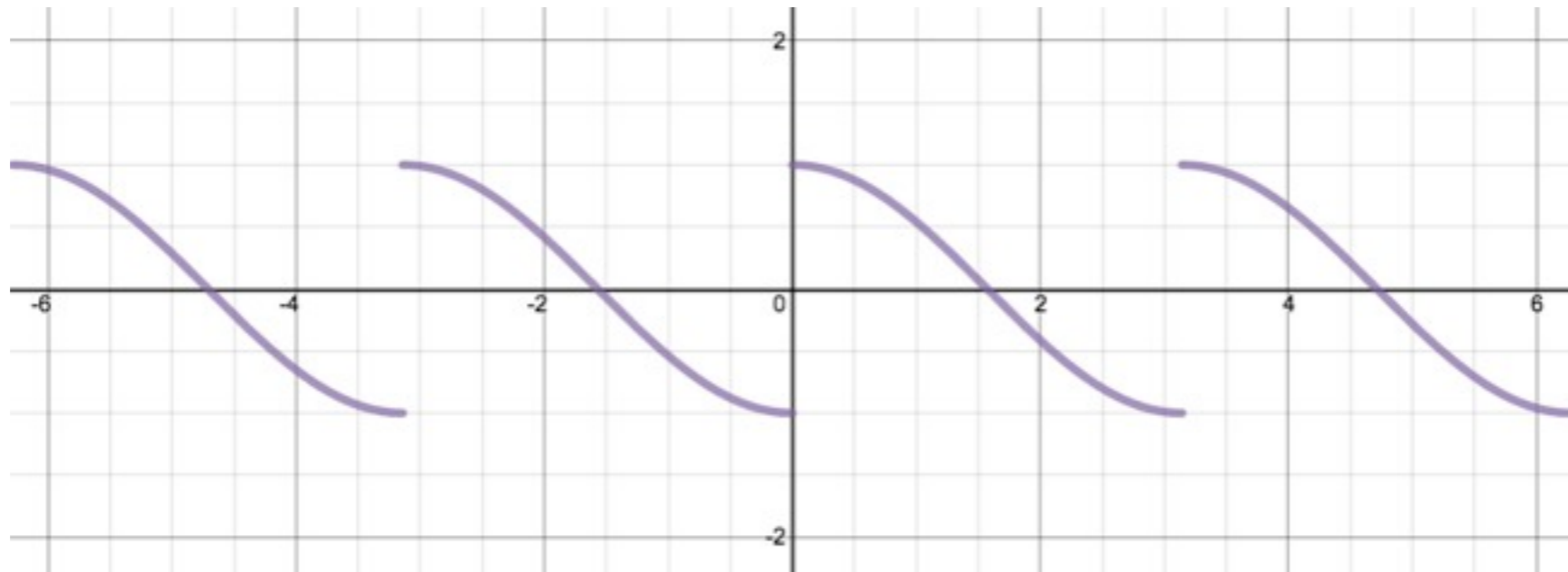# Today

- Sketching graphs by hand and by spreadsheet.

- Reminders:

    - PL3.3 for Friday

    - Assignment 2 for Thursday

    - OSH in a week and a half

    - Midterm 1 in two weeks - 1 day!
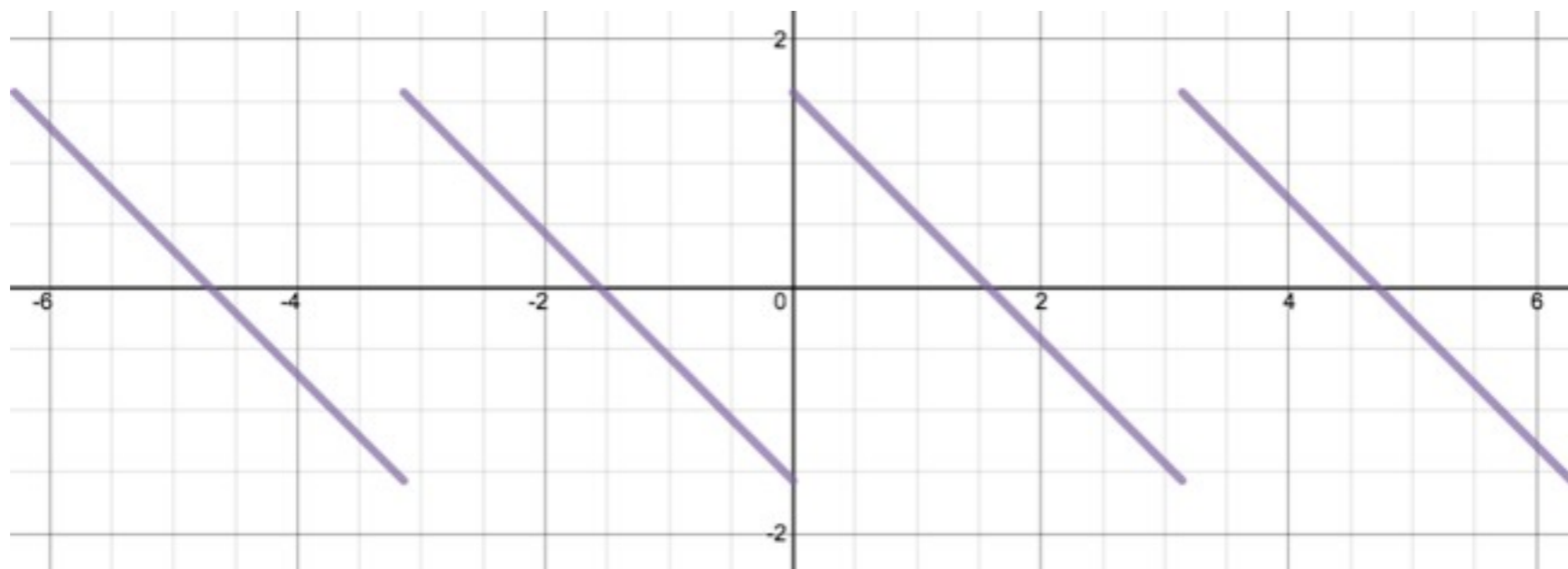
Sketch the derivative of f(x) = |sin(x)|
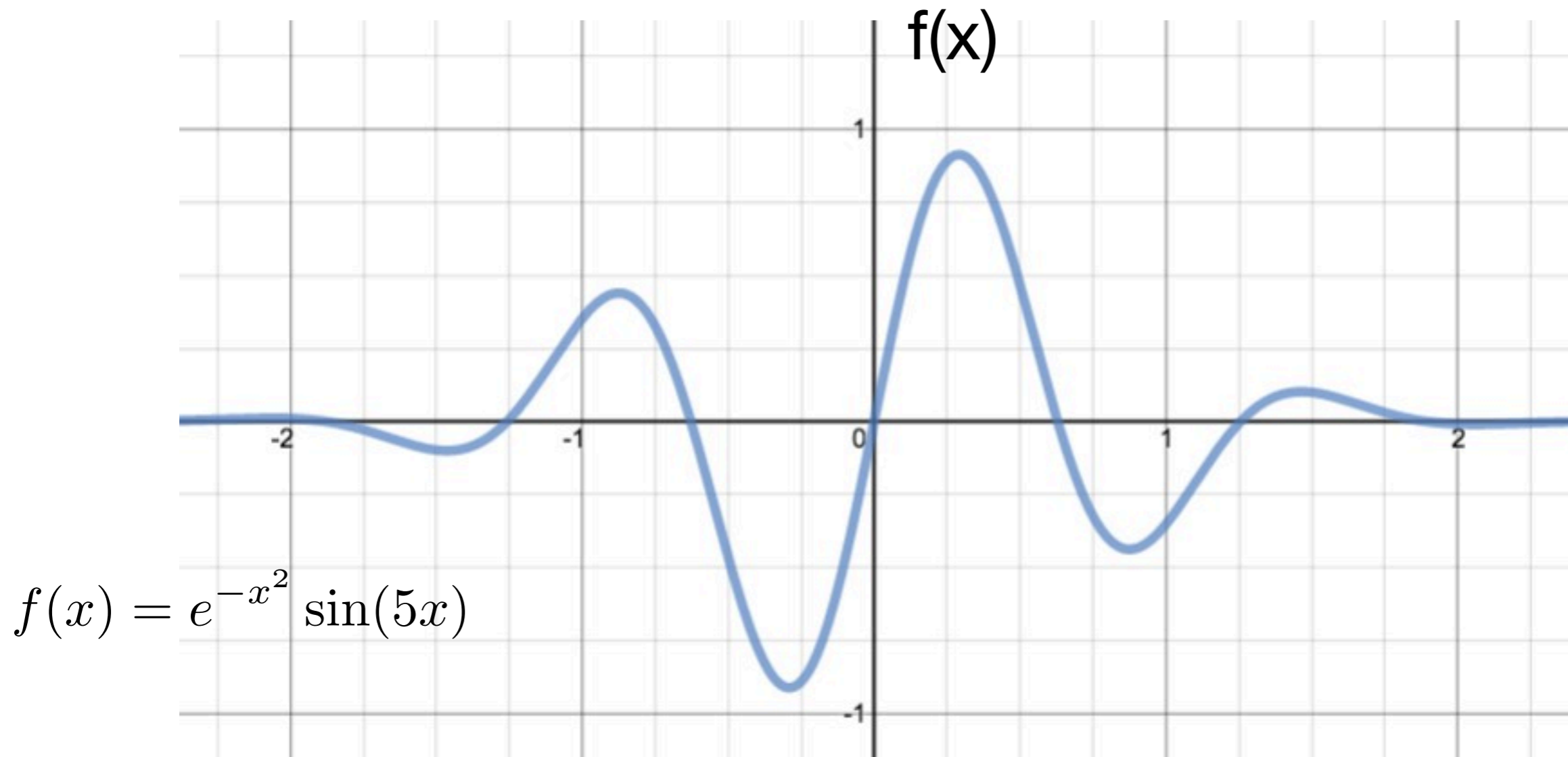

|sin(x)|

Sketch the derivative of f(x) = |sin(x)|

(A)

(B)

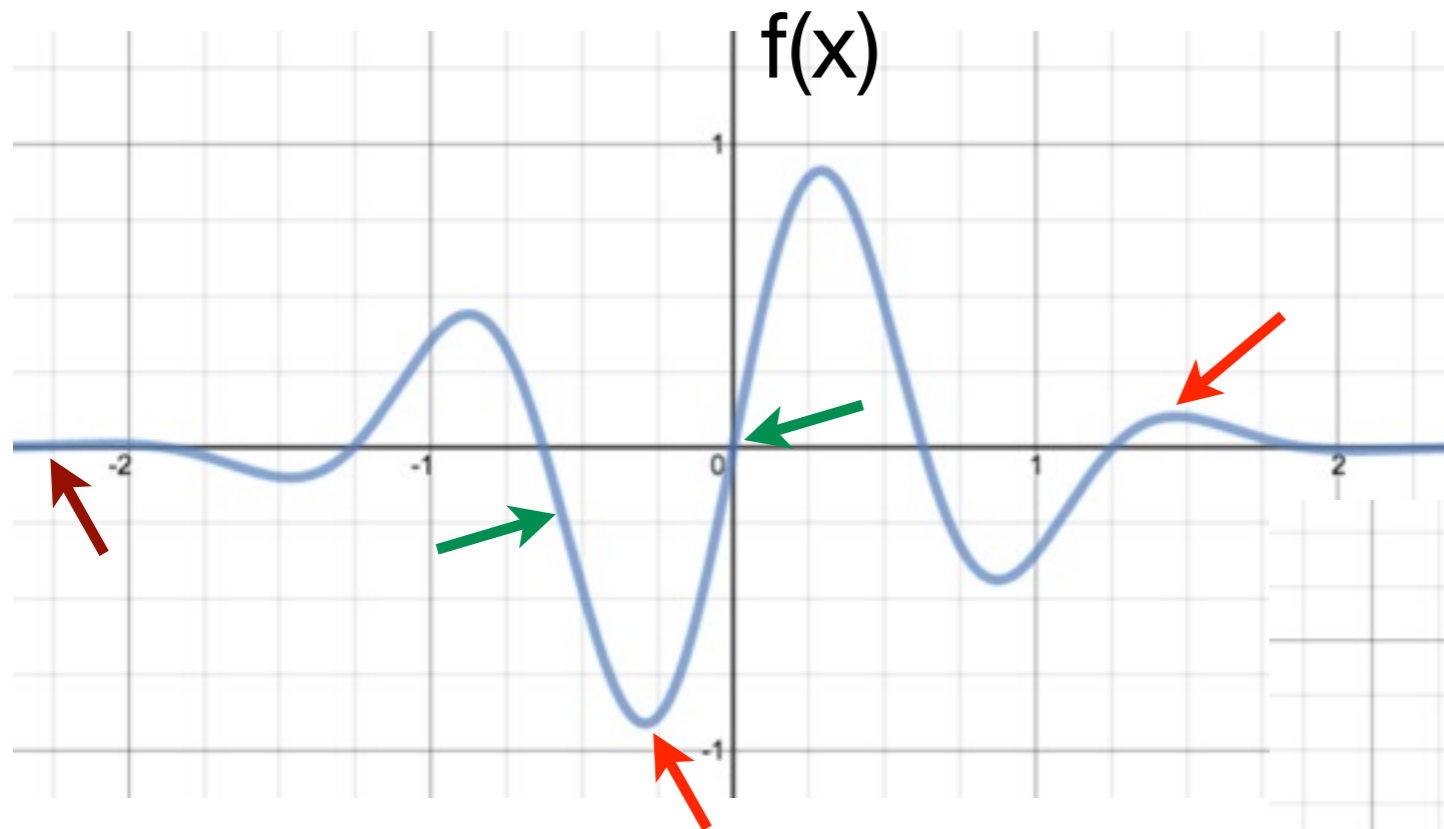# Sketch f'(x) for the function f(x) given below.

$$f(x) = e^{-x^2} \sin(5x)$$

- Make sure to include a vertical scale on your graph so that it is possible to see, for example, what is the maximum slope of f(x).
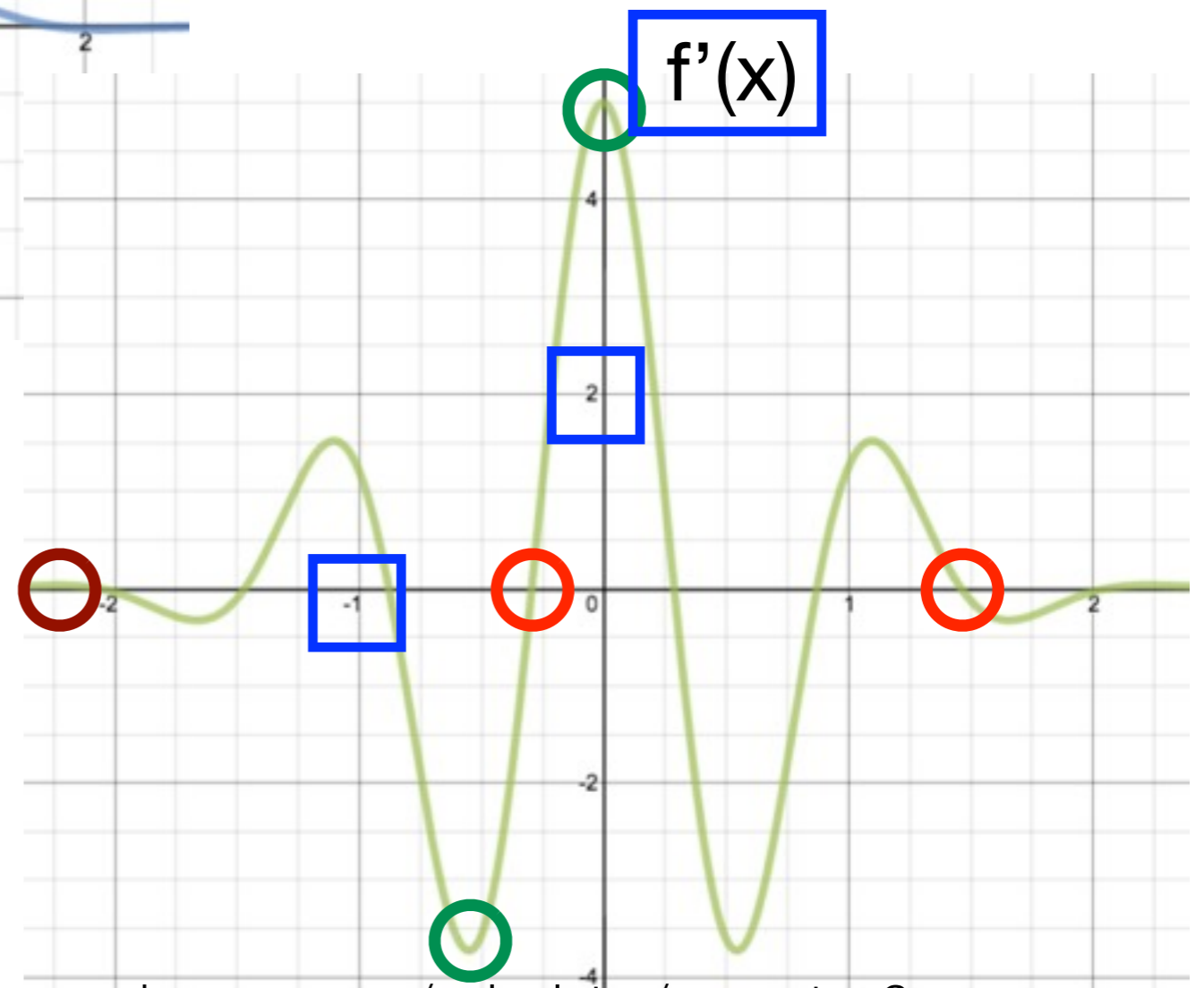
(A) I'm still working on it.   (B) I'm finished.

Sketch f'(x) for the function f(x) given below.

f(x)

(A) My graph shows this.

(B) Oops.

f'(x)

- High and low points (mins and maxes) have zero slope.

- For large |x|, f(x) becomes flat.

- Estimate maximum and minimum slopes.

- f(x) is odd, f'(x) is even.

https://www.desmos.com/calculator/zowyytoc9u

How to graph f'(x) using a spreadsheet

- Sketch f'(x) for the following functions:

  - $f(x) = |\sin(x)|$

    $$f(x) = e^{-x^2}\sin(5x)$$

- Zooming in on a specific region...