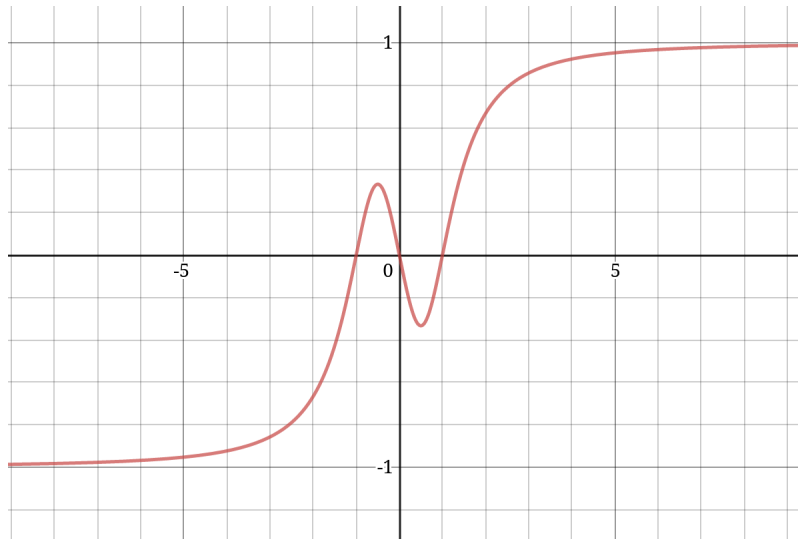**This weightless assignment is due on Crowdmark by Monday, November 30, at 9:00pm EST. It does not count toward your course grade.**

Exercise 1. Read Spivak Chapter 11, Appendix, "Convexity and Concavity." Consider the following graph of a function.

Assume this is the graph of f' (the *derivative* of f).

(a) On what interval(s) is f convex? Concave? Where are its inflection point(s)?

(b) Does f have local extrema? If so, where?

(c) Is f' odd, even, or neither? Can you guess whether f is odd, even, or neither? c.f. Spivak problems 9.23 and 9.24.

[Extra: graph f.] [Bonus extra: can you find the function I used to get the above graph? Desmos or geogebra are useful, free, online graphing tools that might help. Ask me for hints!]