

Calculus I, 21-111
Homework # 2
Due Thursday, February 1

Complete all exercises.

Textbook exercises:

- Section 1.1 # 6, 22, 34, 49, 58
- Section 1.2 # 5, 6, 7, 8, 38e
- Section 1.4 # 30, 49, 50, 53, 54

Additional exercises:

1. Suppose $f(2) = 4$ and $f'(2) = 7$. About how big would you expect $f(2.001)$ to be? What about $f(1.999)$?
2. Give an example of a function f such that $f'(x) = 0$ for all values of x , and sketch a graph of this function.
3. Give an example of a function f such that $f'(x) = -3$ for all values of x , and sketch a graph of this function.
4. True or false (and explain): If $f'(2) > g'(2)$ then $f(2) > g(2)$.
5. True or false (and explain): If $f'(x) > 0$ for all values of x , then $f(2) > f(1)$.