

Math 152-37, Mr. Church, Homework 4

Due in class on Wednesday, October 15. Please staple your homework.

You are responsible for all of these problems (including odd-numbered exercises). Starred problems are harder and worth more points.

1. Exercise 3.5.61.

For the next two problems, you do not have to substitute back in for y (in fact, you can't, because you don't have an expression for y in terms of x); your answers will be in terms of x and y .

2. Exercise 3.7.4
3. Exercise 3.7.14. Note that the question asks for $\frac{d^2y}{dx^2}$, the *second* derivative of y (also written as y'').
4. Exercise 3.7.38. Recall that $\sqrt{x} = x^{\frac{1}{2}}$, and note that the question asks for the *second* derivative.
5. Exercise 4.2.8.
6. Exercise 4.2.51.
7. (★) [due Friday 10/17, but you can get started now] Exercise 4.1.29.