

Math 114 Spring 2017
Calculus I HW 9
Due Friday, April 7

1. Stewart 2.6.4
2. Stewart 2.6.10
3. Stewart 2.6.20
4. Stewart 2.6.22
5. Suppose $f(x) = ax^2 + bx + c$ satisfies $f(2) = 1, f'(2) = 2, f''(2) = 3$. Find $f(x)$.
6. Prove that $f(x) = \sin(x) + x^2$ satisfies $f''(x) + f(x) = x^2 + 2$.
7. Suppose $f'(x) = \frac{1}{2}f(x)$ and $f(1) = 3$. Use Euler's method to approximate $f(4)$ using three steps.
8. Suppose $f'(x) = 4 - \frac{f(x)}{x}$, and $f(2) = 2$. Use Euler's method and four steps to approximate $f(4)$.
9. Stewart 2.7.4
10. Stewart 2.7.6
11. Stewart 2.7.16
12. (★) Stewart 2.7.37