Textbook problems from Stewart *Calculus*, 7th edition:

- §6.2: 79, 81, 84, 85, 90
- §6.3: 17, 27, 28, 47
- §6.4: 9, 21, 73, 74, 75, 80
- §6.6: 1, 7, 9, 13, 22, 23, 25, 30, 38, 39, 57, 59, 60, 61, 63, 65, 69

Supplemental problems (also to turn in). These problems serve as a review of the u-substitution technique; review it in §4.5 if it is rusty. Try to do these fairly quickly. Practice looking at the integral and quickly identifying a good choice of u (and justifying to yourself why it is a good choice!).

1. $\displaystyle\int \frac{1}{e^{7x}}\,dx$
2. $\displaystyle\int e^{14x}\,dx$
3. $\displaystyle\int e^{1-2x}\,dx$
4. $\displaystyle\int \frac{e^{\sqrt{x}}}{\sqrt{x}}\,dx$
5. $\displaystyle\int e^x \sin(e^x)\,dx$
6. $\displaystyle\int \cos\left(\frac{x}{5}\right)\,dx$
7. $\displaystyle\int \sec^2\theta \tan^3\theta\,d\theta$
8. $\displaystyle\int (2-3x)^5\,dx$
9. $\displaystyle\int \frac{1}{7-x}\,dx$
10. $\displaystyle\int \frac{1}{\sqrt{7x+5}}\,dx$
11. $\displaystyle\int \frac{1}{(3-5x)^2}\,dx$
12. $\displaystyle\int \frac{1}{2x-1}\,dx$
13. $\displaystyle\int \frac{1}{\sqrt{x}(1+\sqrt{x})^2}\,dx$
14. $\displaystyle\int x\sqrt{7-3x^2}\,dx$
15. $\displaystyle\int \frac{1}{x\ln x}\,dx$
16. $\displaystyle\int \sin(\pi x+1)\,dx$
17. $\displaystyle\int x(1-x)^{79}\,dx$
18. $\displaystyle\int x^3(x+1)^{79}\,dx$
19. $\displaystyle\int \frac{x^2}{\sqrt{3-x}}\,dx$

Important notes:

- Regrade requests must be submitted via Gradescope within *one week of the due date* of the assignment.
- For full credit, you must show or explain your reasoning.
- You are encouraged to work in groups while solving the problems, but all submitted work must be your own work in your own words. Use of solution manuals or online solution databases is plagiarism, and will result in a 0 on the assignment in addition to being reported to Community Standards.

Submission instructions:
Before submitting your assignment scan it to a single pdf file and **view your pdf to make sure that it is clearly legible.** Then submit it as follows.

1. Go to `http://www.gradescope.com` and log in.
2. Select "Math 111" and the appropriate homework assignment, then select "submit pdf."
3. For each written question, select the pages of your submission where your solution appears.
4. Click submit.