

Math 106 Sections A and B

HW 2 (due on Friday, 1/21)

Show all your work to receive full credit for a problem. Use the table of integrals only for problems from section 7.4.

I. Do the following problems from the textbook:

- Section 7.1 (Pages 297-298) 50, 60, 66, 74
- Section 7.2 (Page 304) 52
- Section 7.4 (Page 316) 14, 20

II. Evaluate the following integrals exactly:

(a) $\int x^2 \ln x \, dx$

(b) $\int \frac{(\ln x)^2}{x} \, dx$

(c) $\int (z - 1) e^{3z} \, dz$

(d) $\int t\sqrt{t+7} \, dt$

(e) $\int \frac{y-2}{y^2-4y+11} \, dy$

(f) $\int x^3 e^{x^2} \, dx$

Practice Problems: Not to be handed in

- Section 7.1 (Page 297) 31, 35, 49, 51, 57, 65
- Section 7.2 (Page 303) 3, 7, 9, 13, 17, 19, 21, 29, 31, 33, 37
- Section 7.4 (Page 316) 19, 27, 29