

# Problem Set 4

## MATH 16B Spring 2016

3 March 2015

**Exercise (9.2.16).** Evaluate

$$\int x^5 \ln(x) dx$$

**Exercise (9.1.12).** Evaluate

$$\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx.$$

**Exercise (9.1.25).** Evaluate

$$\int \frac{1}{x \ln(x^2)} dx.$$

**Exercise (9.2.6).** Evaluate

$$\int x^2 e^x dx.$$

**Exercise (9.1.42).** Evaluate

$$\int (1 + \ln x) \sin(x \ln x) dx.$$

(There is a hint for this exercise in the book).

**Exercise (9.2.39).** Evaluate

$$\int \frac{x e^x}{(x+1)^2} dx.$$

(There is a hint for this exercise in the book).