

**Math 251: Problem Set 9**

Due: April 14, 2010

*This is a pledged set. Therefore, no outside help from book, calculator, or other people.*

1. Calculate

$$\int_1^9 \frac{3x - 2}{\sqrt{x}} \, dx$$

2. Evaluate

$$\int \frac{\sin(\ln x)}{x} \, dx$$

3. Evaluate

$$\int p^5 \ln p \, dp$$

4. Evaluate

$$\int \cos x \ln(\sin x) \, dx$$

5. Evaluate

$$\int_0^1 \frac{\ln y}{\sqrt{y}} \, dy$$