

**Math 142, Exam 1, Fall 2015**

Write everything on the blank paper provided. **You should KEEP this piece of paper.** If possible: return the problems in order (use as much paper as necessary), use only one side of each piece of paper, and leave 1 square inch in the upper left hand corner for the staple. If you forget some of these requests, don't worry about it – I will still grade your exam.

The exam is worth 50 points. Each problem is worth 10 points. Please make your work coherent, complete, and correct. Please *CIRCLE* your answer. Please **CHECK** your answer whenever possible.

**No Calculators or Cell phones.**

1. Find  $\int \sin^2 x \cos^3 x dx$  . **Please check your answer.**

2. Find  $\int \frac{dx}{\sqrt{x^2 + 2x + 17}}$  . **Please check your answer.**

3. Find  $\int \frac{x dx}{e^{3x}}$  . **Please check your answer.**

4. Find  $\int e^{7x} \sin x dx$  . **Please check your answer.**

5. Find  $\int \frac{x^4}{\sqrt[3]{1+x^5}} dx$  . **Please check your answer.**