

Please show **all** your work! Answers without supporting work will not be given credit.  
Write answers in spaces provided.

Name: \_\_\_\_\_

1. [3 pts] Evaluate

$$\int_0^{\infty} 5xe^{-2x} dx$$

Answer: \_\_\_\_\_

2. [3 pts] Evaluate

$$\int_6^{\infty} \frac{dx}{x \ln x}$$

Answer: \_\_\_\_\_

3. [4 pts] Evaluate

$$\int_0^3 \frac{x}{\sqrt{9-x^2}} dx$$

Answer: \_\_\_\_\_