

Calculus II

Name: _____

Study Guide 6

Class: _____

Due Date: _____

Score: _____

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

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

1. _____

2. (3 points) Find $\int \frac{(\ln x + 1)^9}{x} dx$.

2. _____

3. (3 points) Find $\int \frac{1}{2\sqrt{x}}(\sqrt{x} - 1) dx$.

3. _____

4. (4 points) Find $\int \frac{2}{\sqrt{x}}(\sqrt{x} - 1)^3 dx$.

4. _____

5. (3 points) Find $\int e^x \cos e^x dx$.

5. _____

6. (3 points) Find $\int \frac{\sin \ln x}{x} dx$.

6. _____

7. (3 points) Find $\int (e^x + 1) \sec^2(e^x + x) dx$.

7. _____

8. (3 points) Evaluate $\int \sqrt{x+1} \, dx$.

8. _____

9. (3 points) Evaluate $\int x\sqrt{x+1} \, dx$.

9. _____

10. (4 points) Evaluate $\int x^2\sqrt{x+1} \, dx$.

10. _____

11. (4 points) Evaluate: $\int \frac{2x+1}{x^2+x} \, dx$.

11. _____

12. (4 points) Evaluate $\int_{-1}^1 x^3 \sqrt{x^2 + 1} dx$.

12. _____

13. (5 points) Evaluate $\int \frac{\sqrt{x}}{\sqrt{x}\sqrt{x} + 1} dx$.

13. _____

14. (4 points) Evaluate $\int e^x \sin e^x \sec^2(\cos e^x) dx$.

14. _____

15. (2 points) Evaluate $\int \frac{\sec^2 \ln x - \tan^2 \ln x}{x} dx$.

15. _____