

Calculus II

Name: _____

Study Guide 18

Class: _____

Due Date: _____

Score: _____

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

1. (3 points) Write out the form of partial fraction decomposition, however do not determine the numerical values of the coefficients: $\frac{x}{x^2 + x - 2}$

1. _____

2. (4 points) Write out the form of partial fraction decomposition, however do not determine the numerical values of the coefficients: $\frac{x^5 + 1}{(x^2 - x)(x^4 + 2x^2 + 1)}$

2. _____

3. (4 points) Evaluate: $\int \frac{x}{(x + 4)(2x - 1)} dx$

3. _____

4. (4 points) Evaluate: $\int \frac{x - 4}{x^2 - 5x + 6} dx$

4. _____

5. (6 points) Evaluate: $\int \frac{x^2 - 2x - 1}{(x^2 - 2x + 1)(x^2 + 1)} dx$

5. _____

6. (4 points) Evaluate: $\int \frac{9}{x^2 + 81} dx$

6. _____

7. (5 points) Evaluate: $\int \frac{9}{x^2 + 6x + 10} dx$

7. _____

8. (5 points) Evaluate: $\int_0^1 \frac{x}{x^2 + 4x + 13} dx$

8. _____

9. (5 points) Evaluate: $\int \frac{\sqrt{x+1}}{x} dx$

9. _____

10. (5 points) Evaluate: $\int_0^1 \frac{1}{1 + \sqrt[3]{x}} dx$

10. _____

11. (5 points) Evaluate: $\int \frac{\cosh x}{\sinh^2 x + \sinh^4 x} dx$

11. _____