

Circle your Instructor: Faudree, Williams, Zirbes

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Name: _____

This is a 30 minute quiz. There are 15 problems. Books, notes, calculators or any other aids are prohibited. Calculators and notes are not allowed. **Your answers should be simplified unless otherwise stated.** There is no partial credit. If you have any questions, please raise your hand.

Circle your final answer.

For each function below, find the definite or indefinite integral.

1. $\int_{-1}^0 16v^4 - 7v^3 + 2 \, dv$

2. $\int e^{2u} \, du.$

3. $\int \frac{9x^2 - 3}{x^3 - x} \, dx$

4. $\int 5 \sec^2(2x) dx$

5. $\int \frac{e^{\sqrt[4]{x}-1}}{2x^{3/4}} dx$

6. $\int \frac{4 \cos x}{(\sin x)^2} dx$

7. $\int_{-1/2}^{1/2} \frac{6}{\sqrt{1-x^2}} dx$

8. $\int \frac{4x}{\sqrt{1-x^2}} dx$

9. $\int \frac{1}{(3x-2)^{2/3}} dx$

10. $\int x^2 e^{-3x^3} dx$

11. $\int e^{2x} \sin(e^{2x}) dx$

12. $\int_0^1 (3 - 5^x) dx$

13. $\int \left(\sqrt[3]{3x} + \frac{x^5}{4} - \frac{3}{x^4} \right) dx$

14. $\int \frac{x^5 - 2x^2}{\sqrt[3]{x}} dx$

15. $\int \sin \theta (2 \cot \theta + \sec \theta) d\theta$