

Circle your Instructor: Faudree, Williams, Zirbes

\_\_\_\_\_ / 15

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.** You should use correct notation including the correct use of equal signs and integration symbols. There is no partial credit. If you have any questions, please raise your hand.

**Circle your final answer.**

---

Evaluate the integral, if it exists.

1.  $\int (x^\pi - e^2) dx$

2.  $\int \left( \frac{1}{(7x)^2} - \frac{8x}{3} + 1 \right) dx$

3.  $\int_0^1 e^x - x^{2/3} dx$

4.  $\int_0^1 \sin(\pi x) dx$

5.  $\int_0^1 (1-x)^9 dx$

6.  $\int e^{5r} dr$

7.  $\int \frac{x}{1+x^2} dx$

8.  $\int \tan^4 x \sec^2 x dx$

9.  $\int \csc^2 x dx$

10.  $\int \frac{(\arctan x)^3}{1+x^2} dx$

11. 
$$\int \frac{x}{\sqrt{1-x^4}} dx$$

12. 
$$\int \frac{1+x}{\sqrt{x^2+2x+3}} dx$$

13. 
$$\int e^x \sin(e^x) dx$$

14. 
$$\int \frac{e^{x^{1/3}}}{x^{2/3}} dx$$

15. 
$$\int \frac{\sec^2 \theta}{2 + \tan \theta} d\theta$$