

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.** There is no partial credit. If you have any questions, please raise your hand.

Circle your final answer.

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

1.  $\int_1^2 6t^2 - 2t - 3 dt$

2.  $\int \frac{9x^2 - 6x}{x^3 - x^2} dx$

3.  $\int \cos \theta (2 \tan \theta + \sec^3 \theta) d\theta$

4.  $\int 10 \cos(3x) dx$

5.  $\int \frac{6e^{\sqrt[3]{x}+2}}{x^{2/3}} dx$

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

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

8.  $\int \frac{-3x}{\sqrt{1-x^2}} dx$

9.  $\int \frac{1}{(2x-3)^{1/4}} dx$

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

11.  $\int \sin x \sec^2(\cos x) dx$

12.  $\int_0^2 (5^x - 2) dx$

13.  $\int \left( \sqrt[3]{2x} + \frac{x^2}{4} - \frac{3}{x^2} \right) dx$

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

15.  $\int e^{7u} du.$