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.

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

1. $\displaystyle\int_1^2 6t^2 - 4t + 1 \; dt$

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

3. $\displaystyle\int \frac{6x^2 - 4x}{x^3 - x^2} dx$

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

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

6. $\int_{1/2}^{1} \dfrac{9}{\sqrt{1-x^2}}dx$

7. $\int \dfrac{2}{x(\ln x)^4}dx$

8. $\int_0^2 (3^x - 5)\, dx$

9. $\int \left(\sqrt[3]{2x} + \frac{x^2}{7} - \frac{2}{x^2} \right) dx$

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

11. $\int e^{5u}\, du.$

12. $\displaystyle\int \frac{-3x}{\sqrt{1-x^2}}\,dx$

13. $\displaystyle\int \frac{1}{(5x+2)^{1/4}}\,dx$

14. $\displaystyle\int xe^{-x^2}\,dx$

15. $\displaystyle\int \sin x \sec(\cos x)\tan(\cos x)\,dx$