\_\_\_\_\_ / 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. 
$$\int_0^1 (1 - 8v^3 + 16v^7) dv$$

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

$$3. \int \frac{7x^4}{2+x^5} dx$$

4. 
$$\int \sin(5\pi x)dx$$

$$5. \int \frac{e^{1/x}}{x^2} dx$$

6. 
$$\int_0^1 \frac{5}{1+x^2} dx$$

$$7. \int \frac{\sin x}{\cos^5 x} dx$$

8. 
$$\int_0^1 (5+10^x) \, dx$$

$$9. \int \left(\sqrt{5x} + \frac{x}{3} + \frac{3}{x}\right) dx$$

$$10. \int \frac{t^2 - 2}{\sqrt{t}} dt$$

11. 
$$\int e^{-4r} dr$$

$$12. \int \frac{4x}{\sqrt{1-x^2}} dx$$

13. 
$$\int \frac{1}{(8x-1)^{1/3}} dx$$

$$14. \int \frac{\ln x}{x} dx$$

15. 
$$\int \sin x \sin(\cos x) dx$$