

Integration Techniques Review

Name _____

Evaluate the integral.

1. $\int \frac{\sin x dx}{3 + \cos x}$

2. $\int \cos^2 x dx$

3. $\int x^4 \ln x dx$

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

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

6. $\int \cos^3 x \sin^2 x dx$

7. $\int \frac{x^3}{(x^4 + 1)^3} dx$

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

9. $\int \frac{xdx}{2x^2 + 5x + 6}$

10. $\int \sqrt{4x^2 + 1} dx$

11. $\int x^3 e^{-5x} dx$

12. $\int \frac{1}{\sqrt{1-9x^2}} dx$

13. $\int \frac{dt}{(t-3)^2 (t+4)}$

14. $\int \frac{16dx}{(x-2)^2 (x^2 + 4)}$

15. $\int \sec^5 x \tan x dx$

16. $\int \tan^6 x dx$

17. $\int \cos^3 x dx$

18. $\int \frac{x^3}{1-4x^2} dx$