

A bunch of integrals to practice

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

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

3. $\int \frac{dx}{(16 - x^2)^{\frac{1}{2}}}$

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

5. $\int x^2 \sin 2x dx$

6. $\int \sec^2 x \tan^{\frac{1}{2}} x dx$

7. $\int \frac{\ln x}{x^{10}} dx$

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

9. $\int \sin^3 x \cos^5 x dx$

10. $\int_{-2}^0 \frac{x+3}{x^2+4x-5} dx$

11. $\int \cos^3 x \sin^4 x dx$

12. $\int \frac{\sqrt{x^2 - 4}}{x^3} dx$

13. $\int x \ln x dx$

14. $\int_0^{\frac{\pi}{2}} 3x \cos x dx$

15. $\int \frac{4x+1}{(4x^2+2x+1)^5} dx$

16. $\int_0^{\frac{\pi}{3}} \frac{\cos^3 x}{\sin x} dx$