

Integration Practice, 7.1-7.3

1. $\int \frac{t^2 \cos(t^3 - 2)}{\sin^2(t^3 - 2)} dt$

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

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

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

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

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

7. $\int \tan^2(\theta) d\theta$

8. $\int xe^{2x} dx$

9. $\int \sin^3(2t) dt$

10. $\int x^2 \sin(4x) dx$

11. $\int \sin^{-1}(x) dx$

12. $\int \sqrt{t} \ln(t) dt$

13. $\int \frac{3x - 2}{(x^2 + 2)^2} dx$

14. $\int \frac{2}{\sqrt{9 - 5x^2}} dx$

15. $\int \frac{3}{3x^2 + 1} dx$

16. $\int \frac{\tan^{-1}(\sqrt{t})}{\sqrt{t}} dt$

17. $\int \cot(x) \ln(\sin(x)) dx$

18. $\int (\ln(x))^2 dx$

19. $\int e^{-x} \sin(2x) dx$

20. $\int x^3 \sqrt{x^2 + 4} dx$

21. $\int \sqrt{2x - x^2} dx$

22. $\int e^{\sqrt[3]{x}} dx$