

Basic Antidifferentiation Techniques – Extra Practice

1. $\int x\sqrt{x} dx$

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

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

12. $\int (2\sec^2 x - 5\csc^2 x) dx$

3. $\int (2x + \sec x \tan x) dx$

13. $\int -\pi e^{\ln \sin x} dx$

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

14. $\int (\ln e^x + \ln e^{-x}) dx$

5. $\int -dx$

15. $\int (5e^x + x^e) dx$

6. $\int \frac{\sin x}{\cos^2 x} dx$

16. $\int \csc x \cot x dx$

7. $\int \frac{dy}{y}$

17. $\int \left(e^u + \sin u - 2u + \frac{1}{u} \right) du$

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

18. $\int \ln e dz$

9. $\int \frac{dt}{2t}$

19. $\int x^\pi dx$

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

20. $\int \frac{dy}{\sqrt[3]{y^3}}$