

Integrate each of the following by hand.

1. $\int (x + 1)^2 dx$

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

3. $\int \frac{x^{3/2}}{x^{-1/5}} dx$

4. $\int 15\sqrt{w} + w^{5/4} dw$

5. $\int \sqrt[3]{x} \left(x^4 - \frac{12}{x} \right) dx$

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

$$7. \int 14e^x dx$$

$$8. \int w^5 - \frac{e^w - 4}{e^w} dw$$

$$9. \int 6x^4 + x^{0.005} dx$$

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