

Examples: Compute the following indefinite integrals.

1) $\int \frac{1}{\sin x} dx$

6) $\int e^{5x} \sin(3x) dx$

2) $\int \cos^3(4x) dx$

7) $\int (x^3 + 2x^2 - 5x + 7) \sin(3x) dx$

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

8) $\int \frac{1}{\sqrt{x^2 + 2x + 2}} dx$

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

9) $\int \frac{1}{\sqrt{3 - x^2 - 2x}} dx$

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

10) $\int \sqrt{3 - x^2 - 2x} dx$