

1.

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

2.

$$\int \frac{x \, dx}{\sqrt{5x^2 - 2x + 1}}$$

3.

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

4.

$$\int \frac{dx}{x^4 + 1} dx$$

5.

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