

Tổng hợp các bài toán trong topic tích phân
Boxmath.vn

1.

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

2.

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

3.

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

4.

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

5.

$$\int \frac{dx}{1 + \sqrt{x} + \sqrt{x+1}}$$

6.

$$\int \frac{dx}{\sqrt[3]{x+1}[\sqrt[3]{(x+1)^2+1}]}$$

7.

$$\int \sqrt{16-x^2} dx$$

8.

$$I = \int \frac{dx}{x^3 \cdot \sqrt[3]{2-x^3}}$$

9.

$$I = \int \sqrt[3]{3x-x^3}$$

10.

$$I = \int \frac{\sin x + \cos x}{2\sin^2 x - 2\sin 2x + 5\cos^2 x} dx$$

11.

$$\int \frac{\sin x}{1 + \sin 2x} dx$$

12.

$$\int \frac{1}{x^3+8} dx$$

13.

$$\int \frac{x^6}{1+x^{12}} dx$$

14.

$$\int \frac{dx}{\sqrt[4]{\sin^3 x \cos^5 x}}$$

15.

$$\int \frac{dx}{\sin 2x - 2 \sin x}$$

16.

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

17.

$$\int \frac{dx}{e^x - 4e^{-x}}$$

18.

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

19.

$$\int (x^2 + 2) \sin 2x$$

20.

$$\int_0^{\frac{\pi}{2}} \frac{1 + \sin x}{1 + \cos x} e^x dx$$

21.

$$\int x \sin \sqrt{x} dx$$

22.

$$I = \int_0^{\frac{\pi}{2}} \tan \frac{x}{2} dx$$

23.

$$\int e^{-2x} \cos(3x) dx$$

24.

$$I = \int \frac{\cos^2 x}{\sin^3 x \cdot \sin(x + \frac{\pi}{4})} dx$$

25.

$$\int \frac{x dx}{\sin^2 x}$$

26.

$$I = \int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \frac{x dx}{4 - \sin^2 x}$$

27.

$$\int \frac{\cos^2 x dx}{\sin x + \sqrt{3} \cos x}$$

28.

$$\int_{\frac{\pi}{4}}^{\frac{\pi}{3}} \frac{\tan x}{\cos x \sqrt{1 + \cos^2 x}}$$

29.

$$\int \frac{dx}{x(x^6 + 1)^2}$$

30.

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

31.

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

32.

$$\int \frac{dx}{1 + \sqrt{x} + \sqrt{x+1}}$$

33.

$$\int \frac{(6x^3 + 8x + 1)dx}{(3x^2 + 4)\sqrt{x^2 + 1}}$$

34.

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

35.

$$\int x^3 \sqrt[3]{1 + x^2} dx$$

36.

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

37.

$$\int \frac{1}{\sin x - 2}$$

38.

$$\int_1^2 \left(\frac{dx}{x^2(\sqrt{x^2 + 1} + x)} \right)$$

39.

$$\int_0^{\frac{\pi}{3}} \ln(1 + \sqrt{3}\tan x) dx$$

40.

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

..... Còn nữa