

1 ●次の不定積分を求めよ。

(1)  $\int x^3 dx$

(2)  $\int x^4 dx$

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

(4)  $\int \frac{1}{x^5} dx$

(5)  $\int \frac{1}{x} dx$

(6)  $\int \frac{5}{x} dx$

(7)  $\int x^{\frac{1}{3}} dx$

(8)  $\int \sqrt[5]{x} dx$

2 ●次の不定積分を求めよ。

(1)  $\int \cos x dx$

(2)  $\int \sin x dx$

(3)  $\int (2\sin x + 3\cos x) dx$

(4)  $\int (4\cos x - 3\sin x) dx$

(5)  $\int \frac{1}{\cos^2 x} dx$

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

(7)  $\int \left( \cos x + \frac{1}{\cos^2 x} \right) dx$

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

3 ●次の不定積分を求めよ。

(1)  $\int e^x dx$

(2)  $\int 3e^x dx$

(3)  $\int e \cdot e^x dx$

(4)  $\int e^{x+2} dx$

(5)  $\int 3^x dx$

(6)  $\int 4 \cdot 3^x dx$

(7)  $\int \frac{1}{2} \cdot 3^x dx$

(8)  $\int 3^{x+2} dx$

4 ●次の不定積分を求めよ。

(1)  $\int 2x^3 dx$

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

(3)  $\int \frac{3}{x} dx$

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

(5)  $\int 5 \sqrt[3]{x^2} dx$

(6)  $\int \left( 5x^4 - \frac{2}{x^3} + 1 \right) dx$

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

(8)  $\int \frac{1}{\sqrt{x}} dx$

5 ●次の不定積分を求めよ。

(1)  $\int \cos x dx$

(2)  $\int 2\sin x dx$

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

(4)  $\int \frac{dx}{\sin^2 x}$

(5)  $\int \left( 7y^6 - \frac{1}{y^2} + 1 \right) dy$

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

(5)  $\int (\sin x + 2\cos x) dx$

(6)  $\int \left( 3\cos x - \frac{2}{\cos^2 x} \right) dx$

8 ● 次の不定積分を求めよ。

(1)  $\int \sin x dx$

(2)  $\int 2\cos x dx$

(7)  $\int \tan x \cos x dx$

(8)  $\int \frac{dx}{1 - \sin^2 x}$

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

(4)  $\int \frac{dx}{\sin^2 x}$

6 ● 次の不定積分を求めよ。

(1)  $\int 3e^x dx$

(2)  $\int 2^x dx$

(5)  $\int (3\sin x + 2\cos x) dx$

(6)  $\int \left( \frac{3}{\cos^2 x} - 4\cos x \right) dx$

(3)  $\int \left( \frac{1}{3} \right)^x dx$

(4)  $\int (e^x + 5^x) dx$

(7)  $\int \tan^2 x dx$

(8)  $\int \left( 1 + \frac{1}{\tan x} \right) \sin x dx$

(5)  $\int e^{x+1} dx$

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

9 ● 次の不定積分を求めよ。

(1)  $\int 4e^x dx$

(2)  $\int 3^x dx$

(7)  $\int 3 \cdot 3^x dx$

(8)  $\int 3^{x+2} dx$

(3)  $\int \frac{dx}{7^x}$

(4)  $\int (2^x - e^x) dx$

7 ● 次の不定積分を求めよ。

(1)  $\int 3x^4 dx$

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

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

(6)  $\int (e^{x+4} + 5^{x+1}) dx$

(3)  $\int \frac{6}{x} dx$

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