

問9.9 次の不定積分を求めよ。

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

(02)  $\int \sin^2 x \, dx$

(03)  $\int \sin x \cos x \, dx$

(04)  $\int \sin 2x \cos x \, dx$

(05)  $\int \sin^2 x \cos x \, dx$

(06)  $\int \frac{\cos x}{\sin^2 x} \, dx$

(07)  $\int \frac{1}{\sin^2 x} \, dx$

(08)  $\int \frac{\cos x}{\sin x} \, dx$

(09)  $\int \frac{\cos x}{1 + \sin x} \, dx$

(10)  $\int \tan x \, dx$

(11)  $\int \tan^2 x \, dx$

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

$$(13) \int x \cos(x^2 + 1) dx$$

$$(14) \int e^{-x} \cos 2x dx$$

$$(15) \int \cos 3x \cos 2x dx$$

$$(16) \int (2x+1)^3 dx$$

$$(17) \int x(x^2 + 1)^3 dx$$

$$(18) \int \frac{1}{\sqrt{2x+1}} dx$$

$$(19) \int \frac{x}{\sqrt{x^2+1}} dx$$

$$(20) \int \frac{x}{x^2+1} dx$$

$$(21) \int (2x+1)(x^2+x+1) dx$$

$$(22) \int (2x+1)(x^2+x+1)^4 dx$$

$$(23) \int \frac{2x+1}{x^2+x+1} dx$$

$$(24) \int \frac{2x+1}{(x^2+x+1)^4} dx$$

$$(25) \int \frac{1}{\sqrt[3]{2x+1}} dx$$

$$(26) \int \frac{1}{2x+1} dx$$

$$(27) \int \left( \sqrt{x} + \frac{1}{\sqrt{x}} \right)^2 dx$$

$$(28) \int \left( x + \frac{1}{x} \right)^2 dx$$

$$(29) \int \left( x + \frac{1}{x^2} \right)^2 dx$$

$$(30) \int (e^x + e^{-x})(e^x - e^{-x}) dx$$

$$(31) \int \frac{e^x - e^{-x}}{e^x + e^{-x}} dx$$

$$(32) \int (e^x + e^{-x})^2 dx$$

$$(33) \int xe^{2x} dx$$

$$(34) \int xe^{x^2} dx$$

$$(35) \int x^2 e^x dx$$

$$(36) \int e^{\sin x} \cos x dx$$

$$(37) \int \log x dx$$

$$(38) \int x \log x dx$$

$$(39) \int \frac{\log x}{x} dx$$