

1. 次の積分を求めよ. 途中の計算式も書くこと.

(1) $\int 3x^5 dx$

(2) 答. _____
 $\int x^{\frac{3}{5}} dx$

(3) 答. _____
 $\int x^{-\frac{2}{3}} dx$

(4) 答. _____
 $\int x^{-\frac{7}{9}} dx$

(5) 答. _____
 $\int x^{\frac{3}{10}} dx$

答. _____

組 番 氏 名 _____

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

(7) 答. _____
 $\int \frac{x + x^{\frac{1}{3}}}{\sqrt{x}} dx$

(8) 答. _____
 $\int \frac{x + 1}{x} dx$

(9) 答. _____
 $\int x^{\log 13} dx$

答. _____

2. 次の不定積分を求めよ.

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

答. _____
(2) $\int (3x - 1)^{13} dx$

答. _____
(3) $\int (x + 5)^{-7} dx$

答. _____
(4) $\int (5x + 2)^3 dx$

答. _____

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

答. _____
(6) $\int \sqrt{2x + 1} dx$

答. _____
(7) $\int \sqrt[3]{(5x - 1)^5} dx$

答. _____

$$(8) \int 3e^x dx$$

答. _____

$$(9) \int 5e^x dx$$

答. _____

$$(10) \int \sin 2x dx$$

答. _____

$$(11) \int \cos 5x dx$$

答. _____

$$(12) \int \sin(3x + 1) dx$$

答. _____

$$(13) \int \cos(3x - 1) dx$$

答. _____

$$(14) \int \frac{1}{\cos^2 3x} dx$$

$$(17) \int e^{2x} dx$$

答. _____

$$(15) \int \frac{1}{\cos^2 5x} dx$$

答. _____

$$(18) \int e^{5x-3} dx$$

答. _____

$$(16) \int \frac{1}{\cos^2(2x-1)} dx$$

答. _____

$$(19) \int 3^x dx$$

答. _____

答. _____