

1. 不定積分（分数係数）その1

積分定数を C として、次の不定積分を求めなさい。

(1)
$$\int 2x^3 + x^2 + \frac{3}{5}x + \frac{13}{12} dx$$

(2)
$$\int \frac{9}{8}x^3 + \frac{9}{8}x^2 - 2 dx$$

(3)
$$\int -\frac{2}{7}x^3 + \frac{17}{10}x^2 - \frac{4}{7} dx$$

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

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

(6)
$$\int \frac{3}{2}x^2 + 2x + \frac{19}{12} dx$$

(7)
$$\int \frac{3}{4}x^2 - \frac{9}{5}x dx$$

(8)
$$\int \frac{13}{7}x^2 + \frac{4}{3}x dx$$

(9)
$$\int \frac{2}{5}x^3 + \frac{1}{2}x^2 + \frac{11}{6}x + \frac{1}{3} dx$$

(10)
$$\int -2x^3 + \frac{2}{3}x^2 - \frac{23}{12}x - \frac{3}{2} dx$$

(11)
$$\int \frac{9}{5}x^2 - \frac{3}{2}x - 1 dx$$

(12)
$$\int 2x^3 - \frac{7}{10}x - \frac{7}{4} dx$$

(13)
$$\int \frac{7}{5}x^2 - \frac{4}{3}x - \frac{3}{2} dx$$

(14)
$$\int \frac{23}{12}x^3 - \frac{4}{7}x dx$$

(15)
$$\int -x^2 - 2x - 2 dx$$

2. 不定積分（分数係数）その2積分定数を C として、次の不定積分を求めなさい。

(1) $\int 2x^3 + \frac{1}{7}x^2 - \frac{11}{6}x - \frac{1}{2} dx$

(2) $\int \frac{3}{2}x^3 - 2x + \frac{12}{7} dx$

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

(4) $\int -\frac{3}{2}x^2 + \frac{2}{3}x - \frac{11}{8} dx$

(5) $\int 2x^3 + \frac{2}{3}x + \frac{9}{8} dx$

(6) $\int \frac{9}{8}x^2 + x - \frac{1}{3} dx$

(7) $\int -\frac{1}{4}x^3 + \frac{2}{3}x^2 + \frac{2}{7}x + 2 dx$

(8) $\int -\frac{9}{5}x^3 + \frac{3}{10}x^2 - \frac{4}{3} dx$

(9) $\int \frac{7}{5}x^3 - 2x - 1 dx$

(10) $\int \frac{2}{5}x^3 - \frac{9}{10}x^2 + \frac{19}{10} dx$

(11) $\int -\frac{1}{6}x^3 + \frac{8}{5}x + 2 dx$

(12) $\int \frac{6}{5}x^3 - \frac{11}{10}x + 1 dx$

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

(14) $\int 2x^3 + \frac{4}{3}x - \frac{4}{7} dx$

(15) $\int -2x^3 + \frac{3}{2}x^2 + \frac{6}{5} dx$

3. 不定積分（分数係数）その3

積分定数を C として、次の不定積分を求めなさい。

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

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

(3) $\int \frac{2}{3}x^2 - 2x + \frac{8}{5} \, dx$

(4) $\int 2x^3 + \frac{11}{6}x^2 - \frac{1}{4}x - 2 \, dx$

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

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

(7) $\int \frac{4}{3}x^3 + \frac{9}{5}x^2 + x - 1 \, dx$

(8) $\int \frac{19}{10}x^3 - \frac{12}{7}x \, dx$

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

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

(11) $\int \frac{5}{3}x^3 + x^2 + 2x \, dx$

(12) $\int \frac{1}{2}x^3 - \frac{1}{6}x^2 + \frac{8}{5}x \, dx$

(13) $\int -\frac{4}{3}x^3 + \frac{1}{8}x^2 - \frac{2}{3}x - \frac{4}{3} \, dx$

(14) $\int \frac{2}{5}x^3 - \frac{1}{4}x - \frac{1}{2} \, dx$

(15) $\int \frac{15}{8}x^3 - \frac{3}{4}x^2 + \frac{7}{4} \, dx$

4. 不定積分（分数係数）その4

積分定数を C として、次の不定積分を求めなさい。

$$(1) \int \frac{1}{3}x^3 - 2x - \frac{5}{4} dx \quad (2) \int \frac{11}{6}x^3 - \frac{1}{2}x^2 - \frac{2}{5}x - 1 dx \quad (3) \int 2x^3 + \frac{11}{6}x^2 - \frac{3}{10}x dx$$

$$(4) \int -2x^3 + x^2 - 2x + \frac{5}{3} dx \quad (5) \int \frac{3}{2}x^3 + \frac{9}{5}x^2 - \frac{4}{3} dx \quad (6) \int -\frac{1}{2}x^3 + \frac{3}{2}x^2 dx$$

$$(7) \int x^3 + x^2 + 2x - \frac{2}{3} dx \quad (8) \int \frac{5}{7}x^3 + \frac{3}{2}x^2 - \frac{2}{3} dx \quad (9) \int \frac{5}{3}x^3 - \frac{6}{5}x^2 + \frac{13}{10}x dx$$

$$(10) \int \frac{3}{8}x^2 + \frac{1}{4}x dx \quad (11) \int \frac{5}{3}x^3 + \frac{8}{5}x dx \quad (12) \int \frac{2}{5}x^3 - \frac{1}{2}x^2 dx$$

$$(13) \int 2x^3 - 2x^2 + \frac{2}{3}x - \frac{1}{2} dx \quad (14) \int 2x^3 - 2x + 2 dx \quad (15) \int -x^3 - 2x - \frac{2}{7} dx$$