

数Ⅱ(不定積分①)

⑥ 次の不定積分を求めよう。

① $\int x^2 dx$

② $\int x^3 dx$

③ $\int (10x-5) dx$

④ $\int (3x^2-4) dx$

⑤ $\int (3t^2+6t) dt$

⑥ $\int (x-1)(x+2) dx$

⑦ $\int (3x+2)^4 dx$

⑧ $\int (x-5)^3 dx$

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数Ⅱ(不定積分①)

⑥ 次の不定積分を求めよう。

① $\int x^2 dx = \frac{1}{3}x^3 + C$
(Cは積分定数)

② $\int x^3 dx = \frac{1}{4}x^4 + C$

③ $\int (10x-5) dx = 5x^2 - 5x + C$

④ $\int (3x^2-4) dx = x^3 - 4x + C$

⑤ $\int (3t^2+6t) dt = t^3 + 3t^2 + C$
 $\frac{1}{15}(3x+2)^5 + C$

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

⑦ $\int (3x+2)^4 dx = \frac{1}{15}(3x+2)^5 + C$

⑧ $\int (x-5)^3 dx = \frac{1}{4}(x-5)^4 + C$