導関数の定義

$$f'(x) =$$

$$f'(x) = \lim_{h \to 0} \frac{f(x+h) - f(x)}{h}$$

$$(x^n)' =$$

$$(c)' =$$

$$(x^n)' = n x^{n-1}$$

$$(c)' = 0$$

曲線 $y = f(x)$ 上の点

$A(a,\ f(a))$ における

接線の方程式は

$$y - f(a) = f'(a)(x - a)$$

$$\int x^n dx =$$

$$\frac{1}{n+1}x^{n+1}+C$$

$$\int_{a}^{a} f(x)dx =$$

$$\int_{a}^{a} f(x)\,dx = 0$$

上端と下端を入れ替えると

$$\int_b^a f(x)dx =$$

$$\int_b^a f(x)dx = -\int_a^b f(x)dx$$

$$\int_{a}^{c} f(x)dx + \int_{c}^{b} f(x)dx =$$

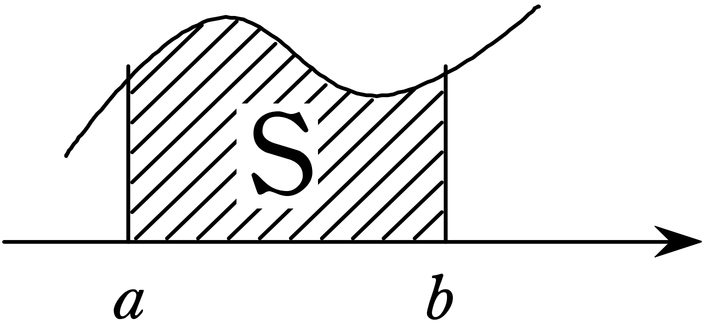
$$\int_a^b f(x)dx$$

$$\frac{d}{dx}\int_a^x f(t)dt =$$

$$f(x)$$

$a \leqq x \leqq b$ で常に $f(x) \geqq 0$ のとき

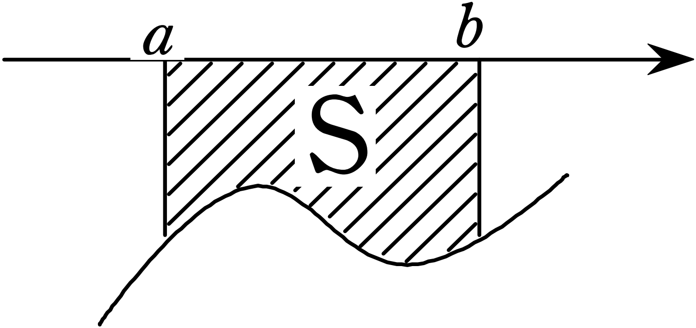
$S =$



$$S=\int_{a}^{b} f(x)dx$$

$a \leqq x \leqq b$ で常に $f(x) \leqq 0$ のとき

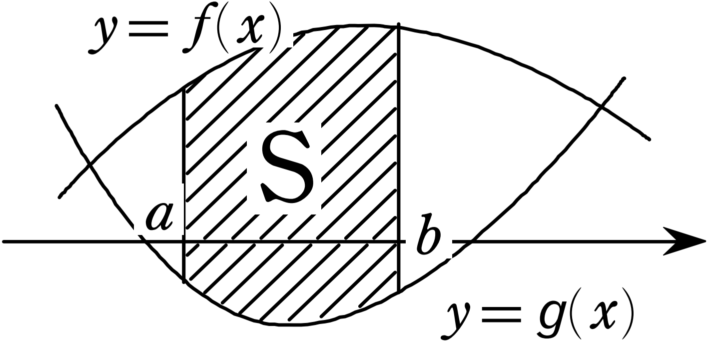
$S =$



$$S=-\int_{a}^{b} f(x)dx$$

$a \leqq x \leqq b$ で常に $f(x) \geqq g(x)$ のとき

$S =$



$$S = \int_a^b \{f(x) - g(x)\} dx$$

$$\int_{\alpha}^{\beta} a(x-\alpha)(x-\beta)dx=$$

$$-\frac{a}{6}(\beta-\alpha)^3$$

$$\left\{(ax+b)^n\right\}' =$$

$$na(ax+b)^{n-1}$$

$$\int (ax+b)^n dx =$$

$$\frac{1}{a(n+1)}(ax+b)^{n+1}+C$$

$$\{(2x-1)^3\}' =$$

$$6(2x-1)^2$$

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

$$\frac{1}{8}(2x-1)^4+C$$