



乗法公式

$$(x+a)(x+b) = x^2 + (a+b)x + ab$$

$$(a+b)^2 = a^2 + 2ab + b^2, \quad (a-b)^2 = a^2 - 2ab + b^2$$

$$(a+b)(a-b) = a^2 - b^2$$



1 次の計算をなさい。

(1) $(x+2)(x+5)$

(2) $(x-8)(x-1)$

(3) $(x+4)(x-2)$

(4) $(x-4y)(x+y)$

(5) $(x-7y)(x-6y)$

(6) $(4x-2)(4x-5)$

(7) $(9a-2b)(9a+5b)$

1	(1)
	(2)
	(3)
	(4)
	(5)
	(6)
	(7)

2 次の計算をなさい。

(1) $(x+4)^2$

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

(3) $(x+\frac{1}{3})^2$

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

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

(6) $(4x-3)^2$

(7) $(2a+3)^2$

(8) $(-7x+y)^2$

(9) $(2x-0.1)^2$

(10) $(-0.1-a)^2$

2	(1)
	(2)
	(3)
	(4)
	(5)
	(6)
	(7)
	(8)
	(9)
	(10)



3 次の計算をなさい。

- (1) $(x-8)(x+8)$ (2) $(0.5x-0.2)(0.5x+0.2)$
- (3) $(\frac{1}{2}x-\frac{1}{5}y)(\frac{1}{2}x+\frac{1}{5}y)$ (4) $(6a-5b)(5b+6a)$
- (5) $(-x-y)(x-y)$ (6) $(x-2)(x+2)(x^2+4)$

3	(1)
	(2)
	(3)
	(4)
	(5)
	(6)

4 次の計算をなさい。

- (1) $(x-2)(x+4)-(x+2)(x-5)$ (2) $(x+3)^2-(x-3)^2$
- (3) $(2x+1)^2-(2x+3)(2x-3)$ (4) $(x+y-3)^2$
- (5) $(a+b+2)(a+b+3)$ (6) $(a-b+2)(a-b-3)$

4	(1)
	(2)
	(3)
	(4)
	(5)
	(6)

答え合わせ

(間違えた問題は動画で解き方を確認しよう)

- 1 (1) $x^2+7x+10$ (2) x^2-9x+8 (3) x^2+2x-8 (4) $x^2-3xy-4y^2$
 (5) $x^2-13xy+42y^2$ (6) $16x^2-28x+10$ (7) $81a^2+27ab-10b^2$
- 2 (1) $x^2+8x+16$ (2) $x^2-12x+36$ (3) $x^2+\frac{2}{3}x+\frac{1}{9}$ (4) $x^2-\frac{2}{3}x+\frac{1}{9}$
 (5) $\frac{1}{4}x^2-x+1$ (6) $16x^2-24x+9$ (7) $4a^2+12a+9$ (8) $49x^2-14xy+y^2$
 (9) $4x^2-0.4x+0.01$ (10) $a^2+0.2a+0.01$
- 3 (1) x^2-64 (2) $0.25x^2-0.04$ (3) $\frac{1}{4}x^2-\frac{1}{25}y^2$
 (4) $36a^2-25b^2$ (5) $-x^2+y^2$ (6) x^4-16
- 4 (1) $5x+2$ (2) $12x$ (3) $4x+10$
 (4) $x^2+2xy+y^2-6x-6y+9$
 (5) $a^2+2ab+b^2+5a+5b+6$
 (6) $a^2-2ab+b^2-a+b-6$

動画解説はこちら

