

この子はx2のyの書き忘れを予防する!!

1 次の式を因数分解せよ。

- (1) $2x^2+7x+3$ (2) $3x^2+x-10$ (3) $6x^2-x-2$
 (4) $3x^2-17x-6$ (5) $6x^2-29x+20$ (6) $10x^2-31x+15$

(1) $2x^2+7x+3$

$$\begin{pmatrix} 1 & 3 & 6 \\ 2 & \times & 1 & 1 \end{pmatrix}$$

$= (x+3)(2x+1)$

(2) $3x^2+x-10$

$$\begin{pmatrix} 1 & 2 & 6 \\ 3 & \times & -5 & -5 \end{pmatrix}$$

$= (x+2)(3x-5)$

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

$$\begin{pmatrix} 2 & 1 & 3 \\ 3 & \times & -2 & -4 \end{pmatrix}$$

$= (2x+1)(3x-2)$

(4) $3x^2-17x-6$

$$\begin{pmatrix} 1 & -6 & -12 \\ 3 & \times & 1 & 1 \end{pmatrix}$$

$= (x-6)(3x+1)$

(5) $6x^2-29x+20$

$$\begin{pmatrix} 1 & -4 & -24 \\ 6 & \times & -5 & -5 \end{pmatrix}$$

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

(6) $10x^2-31x+15$

$$\begin{pmatrix} 2 & -5 & -25 \\ 5 & \times & -3 & -6 \end{pmatrix}$$

$= (2x-5)(5x-3)$

2 次の式を因数分解せよ。

- (1) $3x^2+4xy+y^2$ (2) $3x^2-5xy+2y^2$ (3) $2x^2-5ax+2a^2$
 (4) $4x^2+8ax-21a^2$ (5) $6x^2-xy-12y^2$ (6) $6x^2+7xy-24y^2$

(1) $3x^2+4xy+y^2$

$$\begin{pmatrix} 1 & y & 3y \\ 3 & \times & y & y \end{pmatrix}$$

$= (x+y)(3x+y)$

(2) $3x^2-5xy+2y^2$

$$\begin{pmatrix} 1 & -y & -3y \\ 3 & \times & -2y & -2y \end{pmatrix}$$

$= (x-y)(3x-2y)$

(3) $2x^2-5ax+2a^2$

$$\begin{pmatrix} 1 & -2a & -4a \\ 2 & \times & -a & -a \end{pmatrix}$$

$= (x-2a)(2x-a)$

(4) $4x^2+8ax-21a^2$

$$\begin{pmatrix} 2 & 7a & 14a \\ 2 & \times & -3a & -6a \end{pmatrix}$$

$= (2x+7a)(2x-3a)$

(5) $6x^2-xy-12y^2$

$$\begin{pmatrix} 2 & -3y & -9y \\ 3 & \times & 4y & 8y \end{pmatrix}$$

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

(6) $6x^2+7xy-24y^2$

$$\begin{pmatrix} 2 & -3y & -9y \\ 3 & \times & 8y & 16y \end{pmatrix}$$

$= (2x-3y)(3x+8y)$

3 次の式を因数分解せよ。

- (1) $12x^2+x-6$ (2) $6x^2-13xy-5y^2$

$$\begin{pmatrix} 3 & -2 & -8 \\ 4 & \times & 3 & 9 \end{pmatrix}$$

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

$$\begin{pmatrix} 2 & -5y & -15y \\ 3 & \times & y & 2y \end{pmatrix}$$

$= (2x-5y)(3x+y)$

4 次の式を因数分解せよ。

- (1) $x^2 - (3y+4)x + (y+5)(2y-1)$
 (3) $x^2 + 2xy + y^2 - 4x - 4y + 3$
 (5) $2x^2 + 3xy - 2y^2 - 5x - 5y + 3$

- (2) $a^2 + (2b+5)a - (b-4)(3b+1)$
 (4) $x^2 - xy - 6y^2 + 2x + 19y - 15$
 (6) $6x^2 - 7xy + 2y^2 - 6x + 5y - 12$

$$(1) \begin{pmatrix} 1 & -(y+5) & -y-5 \\ 1 & -(2y-1) & -2y+1 \end{pmatrix}$$

$$\underline{(x-y-5)(x-2y+1)}$$

$$(3) x^2 + 2xy + y^2 - 4x - 4y + 3$$

$$= x^2 + (2y-4)x + (y-3)(y-1)$$

$$\begin{pmatrix} 1 & y-3 & y-3 \\ 1 & y-1 & y-1 \end{pmatrix}$$

$$\underline{= (x+y-3)(x+y-1)}$$

$$(2) \begin{pmatrix} 1 & 3b+1 & 3b+1 \\ 1 & -b+4 & -b+4 \end{pmatrix}$$

$$\underline{(a+3b+1)(a-b+4)}$$

$$(4) x^2 - xy - 6y^2 + 2x + 19y - 15$$

$$= x^2 + (-y+2)x - (6y^2 - 19y + 15)$$

$$= x^2 + (-y+2)x - (3y-5)(2y-3)$$

$$\begin{pmatrix} 1 & -3y+5 & -3y+5 \\ 1 & 2y-3 & 2y-3 \end{pmatrix}$$

$$\underline{= (x-3y+5)(x+2y-3)}$$

$$(5) 2x^2 + 3xy - 2y^2 - 5x - 5y + 3$$

$$= 2x^2 + (3y-5)x - 2y^2 - 5y + 3$$

$$= 2x^2 + (3y-5)x - (2y-1)(y+3)$$

$$\begin{pmatrix} 1 & 2y-1 & 4y-2 \\ 2 & -y-3 & -y-3 \end{pmatrix}$$

$$\underline{= (x+2y-1)(2x-y-3)}$$

この部分が、
2行を含まず

$$(6) 6x^2 - 7xy + 2y^2 - 6x + 5y - 12$$

$$= 6x^2 + (-7y-6)x + 2y^2 + 5y - 12$$

$$= 6x^2 + (-7y-6)x + (2y-3)(y+4)$$

$$\begin{pmatrix} 2 & -y-4 & -3y-12 \\ 3 & -2y+3 & -4y+6 \end{pmatrix}$$

$$\underline{= (2x-y-4)(3x-2y+3)}$$

この()の中に
入れた方が、
ここと比較
がわかる

<今日のふりかえり>

