

同類項をまとめる 2年組番氏名

① 次の式と同類項をまとめなさい。

(1) $2x - 5x + 4y$

(2) $-4a + 3b - a$

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

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

(5) $7a - 5b - 8a + 5b + 6$

(6) $\frac{1}{2}x - 2y - \frac{2}{3}x + \frac{5}{2}y$

②

次の式と同類項をまとめなさい。

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

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

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

(4) $-x^2 + 2xy + 4x^2 - 5xy$

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

(6) $\frac{1}{3}a^2 - \frac{1}{2}b^2 - \frac{3}{4}a^2 + \frac{5}{6}b^2$

式の加法・減法 2年組番氏名

① 次の計算をなさい。

(1) $x - 2y + (3x + y)$ _____

(2) $(2a - b) - (4a + 3b)$ _____

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

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

(5)
$$\begin{array}{r} 12x - 8y \\ +) -5x + 6y \\ \hline \end{array}$$

(6)
$$\begin{array}{r} 3a - b \\ -) 3a + 2b \\ \hline \end{array}$$

② 次の計算をなさい。

(1) $3x - 2y - 1 + (-x - 3y + 4)$ _____

(2) $(2a - 5b + 3) - (4a - b + 6)$ _____

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

(4) $(2x^2 + 3x - 1) - (x^2 - 2x - 4)$ _____

(5)
$$\begin{array}{r} x^2 - x - 2 \\ +) 3x^2 + 5x - 1 \\ \hline \end{array}$$

(6)
$$\begin{array}{r} 3x^2 - 2x + 1 \\ -) 2x^2 - 2x - 3 \\ \hline \end{array}$$

① 次の計算をなさい。

(1) $2(x-2y)$ _____

(2) $-3(a+4b)$ _____

(3) $(-x+2y) \times (-5)$ _____

(4) $(2a-3b+1) \times (-2)$ _____

(5) $\frac{1}{3}(6x^2-9x+12)$ _____

(6) $(4x-6y+10) \times \left(-\frac{1}{2}\right)$ _____

② 次の計算をなさい。

(1) $(6a-3b) \div 3$ _____

(2) $(4x-6y) \div (-2)$ _____

(3) $(24a-36b+60) \div 12$ _____

(4) $(10x^2-15x+30) \div (-5)$ _____

(5) $(3a+5b) \div \frac{1}{2}$ _____

(6) $(10x-26y) \div \left(-\frac{2}{3}\right)$ _____

① 次の計算をなさい。

(1) $3a + 2(a - 2b)$

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

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

(4) $-2(6a + 7b) + 4(4a - b)$

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

(6) $\frac{1}{2}(a - 5b) - \frac{1}{4}(3a - b)$

<ここがポイント!!>

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

のように計算すればいいよ

② 次の計算をなさい。

(1) $5(3x - 2y + 1) - 6(3x - y - 2)$

(2) $4(-a^2 + 2a - 5) - 2(a^2 + 4a - 7)$

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

同類項をまとめる 2年組番氏名 _____

① 次の式の同類項をまとめなさい。

$$\begin{aligned} (1) \quad & 2x - 5x + 4y \\ & = (2 - 5)x + 4y \\ & = -3x + 4y \end{aligned}$$

$$\underline{-3x + 4y}$$

$$\begin{aligned} (2) \quad & -4a + 3b - a \\ & = (-4 - 1)a + 3b \\ & = -5a + 3b \end{aligned}$$

$$\underline{-5a + 3b}$$

$$\begin{aligned} (3) \quad & 3x - 2y - 3x + 5y \\ & = (3 - 3)x + (-2 + 5)y \\ & = 3y \end{aligned}$$

$$\underline{3y}$$

$$\begin{aligned} (4) \quad & 6x - 3y - 4x - 2y \\ & = (6 - 4)x + (-3 - 2)y \\ & = 2x - 5y \end{aligned}$$

$$\underline{2x - 5y}$$

$$\begin{aligned} (5) \quad & 7a - 5b - 8a + 5b + 6 \\ & = (7 - 8)a + (-5 + 5)b + 6 \\ & = -a + 6 \end{aligned}$$

$$\underline{-a + 6}$$

$$\begin{aligned} (6) \quad & \frac{1}{2}x - 2y - \frac{2}{3}x + \frac{5}{2}y \\ & = \left(\frac{1}{2} - \frac{2}{3}\right)x + \left(-2 + \frac{5}{2}\right)y \\ & = -\frac{1}{6}x + \frac{1}{2}y \end{aligned}$$

$$\underline{-\frac{1}{6}x + \frac{1}{2}y}$$

② 次の式の同類項をまとめなさい。

$$\begin{aligned} (1) \quad & x^2 - 4x - 3x^2 \\ & = (1 - 3)x^2 - 4x \\ & = -2x^2 - 4x \end{aligned}$$

$$\underline{-2x^2 - 4x}$$

$$\begin{aligned} (2) \quad & -2x^2 + 3x - 5x \\ & = -2x^2 + (3 - 5)x \\ & = -2x^2 - 2x \end{aligned}$$

$$\underline{-2x^2 - 2x}$$

$$\begin{aligned} (3) \quad & a^2 - 2a + 2a^2 - 3a \\ & = (1 + 2)a^2 + (-2 - 3)a \\ & = 3a^2 - 5a \end{aligned}$$

$$\underline{3a^2 - 5a}$$

$$\begin{aligned} (4) \quad & -x^2 + 2xy + 4x^2 - 5xy \\ & = (-1 + 4)x^2 + (2 - 5)xy \\ & = 3x^2 - 3xy \end{aligned}$$

$$\underline{3x^2 - 3xy}$$

$$\begin{aligned} (5) \quad & 3x^2 - 5xy - 1 - 2x^2 + 5xy + 3 \\ & = (3 - 2)x^2 + (-5 + 5)xy + (-1 + 3) \\ & = x^2 + 2 \end{aligned}$$

$$\underline{x^2 + 2}$$

$$\begin{aligned} (6) \quad & \frac{1}{3}a^2 - \frac{1}{2}b^2 - \frac{3}{4}a^2 + \frac{5}{6}b^2 \\ & = \left(\frac{1}{3} - \frac{3}{4}\right)a^2 + \left(-\frac{1}{2} + \frac{5}{6}\right)b^2 \\ & = -\frac{5}{12}a^2 + \frac{1}{3}b^2 \end{aligned}$$

$$\underline{-\frac{5}{12}a^2 + \frac{1}{3}b^2}$$

式の加法・減法 2年組番氏名

① 次の計算をなさい。

$$\begin{aligned}
 (1) \quad & x-2y+(3x+y) \\
 & =x-2y+3x+y \\
 & =4x-y
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & (2a-b)-(4a+3b) \\
 & =2a-b-4a-3b \\
 & =-2a-4b
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad & (-x+2y)+(2x-5y) \\
 & =-x+2y+2x-5y \\
 & =x-3y
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad & (x+3y)-(-x-2y) \\
 & =x+3y+x+2y \\
 & =2x+5y
 \end{aligned}$$

$$\begin{array}{r}
 (5) \quad 12x-8y \\
 +) \quad -5x+6y \\
 \hline
 \quad \quad 7x-2y
 \end{array}$$

$$\begin{array}{r}
 (6) \quad 3a-b \\
 -) \quad 3a+2b \\
 \hline
 \quad \quad -3b
 \end{array}$$

4x-y

-2a-4b

x-3y

2x+5y

7x-2y

-3b

② 次の計算をなさい。

$$\begin{aligned}
 (1) \quad & 3x-2y-1+(-x-3y+4) \\
 & =3x-2y-1-x-3y+4 \\
 & =2x-5y+3
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad & (2a-5b+3)-(4a-b+6) \\
 & =2a-5b+3-4a+b-6 \\
 & =-2a-4b-3
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad & (x^2-x)+(2x^2-3x-2) \\
 & =x^2-x+2x^2-3x-2 \\
 & =3x^2-4x-2
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad & (2x^2+3x-1)-(x^2-2x-4) \\
 & =2x^2+3x-1-x^2+2x+4 \\
 & =x^2+5x+3
 \end{aligned}$$

$$\begin{array}{r}
 (5) \quad x^2-x-2 \\
 +) \quad 3x^2+5x-1 \\
 \hline
 \quad \quad 4x^2+4x-3
 \end{array}$$

$$\begin{array}{r}
 (6) \quad 3x^2-2x+1 \\
 -) \quad 2x^2-2x-3 \\
 \hline
 \quad \quad x^2 \quad +4
 \end{array}$$

2x-5y+3

-2a-4b-3

3x^2-4x-2

x^2+5x+3

4x^2+4x-3

x^2+4

① 次の計算をなさい。

$$(1) \quad 2(x-2y)$$

$$= 2x - 4y$$

2x - 4y

$$(2) \quad -3(a+4b)$$

$$= -3a - 12b$$

-3a - 12b

$$(3) \quad (-x+2y) \times (-5)$$

$$= 5x - 10y$$

5x - 10y

$$(4) \quad (2a-3b+1) \times (-2)$$

$$= -4a + 6b - 2$$

-4a + 6b - 2

$$(5) \quad \frac{1}{3}(6x^2-9x+12)$$

$$= 2x^2 - 3x + 4$$

2x² - 3x + 4

$$(6) \quad (4x-6y+10) \times \left(-\frac{1}{2}\right)$$

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

-2x + 3y - 5

② 次の計算をなさい。

$$(1) \quad (6a-3b) \div 3$$

$$= (6a-3b) \times \frac{1}{3}$$

$$= 2a - b$$

2a - b

$$(2) \quad (4x-6y) \div (-2)$$

$$= (4x-6y) \times \left(-\frac{1}{2}\right)$$

$$= -2x + 3y$$

-2x + 3y

$$(3) \quad (24a-36b+60) \div 12$$

$$= (24a-36b+60) \times \frac{1}{12}$$

$$= 2a - 3b + 5$$

2a - 3b + 5

$$(4) \quad (10x^2-15x+30) \div (-5)$$

$$= (10x^2-15x+30) \times \left(-\frac{1}{5}\right)$$

$$= -2x^2 + 3x - 6$$

-2x² + 3x - 6

$$(5) \quad (3a+5b) \div \frac{1}{2}$$

$$= (3a+5b) \times 2$$

$$= 6a + 10b$$

6a + 10b

$$(6) \quad (10x-26y) \div \left(-\frac{2}{3}\right)$$

$$= (10x-26y) \times \left(-\frac{3}{2}\right)$$

$$= -15x + 39y$$

-15x + 39y

いろいろな多項式の計算 2年 組 番 氏名 _____

① 次の計算をなさい。

$$\begin{aligned} (1) \quad & 3a+2(a-2b) \\ & =3a+2a-4b \\ & =5a-4b \end{aligned}$$

$$\begin{aligned} (2) \quad & 4(x-2y)+3(x+3y) \\ & =4x-8y+3x+9y \\ & =7x+y \end{aligned}$$

$$\begin{aligned} (3) \quad & 3(3x-y)-4(x+2y) \\ & =9x-3y-4x-8y \\ & =5x-11y \end{aligned}$$

$$\begin{aligned} (4) \quad & -2(6a+7b)+4(4a-b) \\ & =-12a-14b+16a-4b \\ & =4a-18b \end{aligned}$$

$$\begin{aligned} (5) \quad & \frac{1}{5}(x-y)+\frac{2}{5}(x-2y) \\ & =\frac{1}{5}x-\frac{1}{5}y+\frac{2}{5}x-\frac{4}{5}y \\ & =\frac{3}{5}x-y \end{aligned}$$

$$\begin{aligned} (6) \quad & \frac{1}{2}(a-5b)-\frac{1}{4}(3a-b) \\ & =\frac{1}{2}a-\frac{5}{2}b-\frac{3}{4}a+\frac{1}{4}b \\ & =-\frac{1}{4}a-\frac{9}{4}b \end{aligned}$$

② 次の計算をなさい。

$$\begin{aligned} (1) \quad & 5(3x-2y+1)-6(3x-y-2) \\ & =15x-10y+5-18x+6y+12 \\ & =-3x-4y+17 \end{aligned}$$

$$\begin{aligned} (2) \quad & 4(-a^2+2a-5)-2(a^2+4a-7) \\ & =-4a^2+8a-20-2a^2-8a+14 \\ & =-6a^2-6 \end{aligned}$$

$$\begin{aligned} (3) \quad & -4(4x-6y+2)-5(-2x+3y-1) \\ & =-16x+24y-8+10x-15y+5 \\ & =-6x+9y-3 \end{aligned}$$