

1 次の計算をなさい。

(1) $x+7y+2x-3y$

(2) $-2a+6b+5a-8b$

(3) $3x^2-4+7x^2-9x$

2 次の計算をなさい。

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

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

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

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

3 次の計算をなさい。

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

(2) $(2a-4b)\times(-4)$

(3) $(18x-45y)\div(-9)$

4 次の計算をなさい。

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

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

(3) $5(3a+2b-1)-2(4a+2b)$

(4) $\frac{4x-5y}{6}+\frac{x+2y}{2}$

5 次の計算をなさい。

(1) $8x\times 2y$

(2) $(-3a)\times(-4b)$

(3) $(7a)^2$

(4) $2xy\times(-4xy^2)$

6 次の計算をなさい。

(1) $42xy\div 6y$

(2) $\frac{3}{4}a^2b\div\frac{3}{8}a$

(3) $\frac{7}{15}x^2y^2\div\left(-\frac{6}{5}xy\right)$

7 次の計算をなさい。

(1) $3a\times 5b\times ab$

(2) $-7xy\times 6x\div 14xy$

(3) $18ab^2\div(-9b)\times(-2)$

(4) $28xy^2\div 12x\div(-7y)$

8 $x=2$, $y=-3$ のとき、次の式の値を求めなさい。

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

(2) $12x\div(-4xy)\times x^2y^2$

1 次の計算をなさい。

$$\begin{aligned}(1) \quad & x+7y+2x-3y \\ & =x+2x+7y-3y \\ & =3x+4y\end{aligned}$$

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

$$\begin{aligned}(2) \quad & -2a+6b+5a-8b \\ & =-2a+5a+6b-8b \\ & =3a-2b\end{aligned}$$

$$\underline{3a-2b}$$

$$\begin{aligned}(3) \quad & 3x^2-4+7x^2-9x \\ & =3x^2+7x^2-9x-4 \\ & =10x^2-9x-4\end{aligned}$$

$$\underline{10x^2-9x-4}$$

2 次の計算をなさい。

$$\begin{aligned}(1) \quad & (2x+3y)+(4x-2y) \\ & =2x+3y+4x-2y \\ & =2x+4x+3y-2y \\ & =6x+y\end{aligned}$$

$$\underline{6x+y}$$

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

$$\underline{-2a+5b}$$

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

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

$$\begin{aligned}(4) \quad & (7a^2-2a)-(4a^2-2a) \\ & =7a^2-2a-4a^2+2a \\ & =7a^2-4a^2-2a+2a \\ & =3a^2\end{aligned}$$

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

3 次の計算をなさい。

$$\begin{aligned}(1) \quad & 2(5x+3y) \\ & =2\times 5x+2\times 3y \\ & =10x+6y\end{aligned}$$

$$\underline{10x+6y}$$

$$\begin{aligned}(2) \quad & (2a-4b)\times(-4) \\ & =2a\times(-4)-4b\times(-4) \\ & =-8a+16b\end{aligned}$$

$$\underline{-8a+16b}$$

$$\begin{aligned}(3) \quad & (18x-45y)\div(-9) \\ & =\frac{18x}{-9}-\frac{45y}{-9} \\ & =-2x+5y\end{aligned}$$

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

4 次の計算をなさい。

$$\begin{aligned}(1) \quad & 3(x+y)+4(-2x+y) \\ & =3x+3y-8x+4y \\ & =3x-8x+3y+4y \\ & =-5x+7y\end{aligned}$$

$$\underline{-5x+7y}$$

$$\begin{aligned}(2) \quad & 2(4x^2-3x)-3(3x^2+2x) \\ & =8x^2-6x-9x^2-6x \\ & =8x^2-9x^2-6x-6x \\ & =-x^2-12x\end{aligned}$$

$$\underline{-x^2-12x}$$

$$\begin{aligned}(3) \quad & 5(3a+2b-1)-2(4a+2b) \\ & =15a+10b-5-8a-4b \\ & =15a-8a+10b-4b-5 \\ & =7a+6b-5\end{aligned}$$

$$\underline{7a+6b-5}$$

$$\begin{aligned}(4) \quad & \frac{4x-5y}{6}+\frac{x+2y}{2} \\ & =\frac{4x-5y+3(x+2y)}{6} \\ & =\frac{4x-5y+3x+6y}{6} \\ & =\frac{7x+y}{6}\end{aligned}$$

$$\underline{\frac{7x+y}{6}}$$

5 次の計算をなさい。

$$\begin{aligned}(1) \quad & 8x\times 2y \\ & =8\times 2\times x\times y \\ & =16xy\end{aligned}$$

$$\underline{16xy}$$

$$\begin{aligned}(2) \quad & (-3a)\times(-4b) \\ & =(-3)\times(-4)\times a\times b \\ & =12ab\end{aligned}$$

$$\underline{12ab}$$

$$\begin{aligned}(3) \quad & (7a)^2 \\ & =7\times 7\times a\times a \\ & =49a^2\end{aligned}$$

$$\underline{49a^2}$$

$$\begin{aligned}(4) \quad & 2xy\times(-4xy^2) \\ & =2\times(-4)\times x\times x\times y\times y\times y \\ & =-8x^2y^3\end{aligned}$$

$$\underline{-8x^2y^3}$$

6 次の計算をなさい。

$$\begin{aligned}(1) \quad & 42xy\div 6y \\ & =\frac{42xy}{6y} \\ & =7x\end{aligned}$$

$$\underline{7x}$$

$$\begin{aligned}(2) \quad & \frac{3}{4}a^2b\div\frac{3}{8}a \\ & =\frac{3a^2b}{4}\times\frac{8}{3a} \\ & =\frac{3a^2b\times 8}{4\times 3a} \\ & =2ab\end{aligned}$$

$$\underline{2ab}$$

$$\begin{aligned}(3) \quad & \frac{7}{15}x^2y^2\div\left(-\frac{6}{5}xy\right) \\ & =\frac{7x^2y^2}{15}\times\left(-\frac{5}{6xy}\right) \\ & =-\frac{7x^2y^2\times 5}{15\times 6xy} \\ & =-\frac{7}{18}xy\end{aligned}$$

$$\underline{-\frac{7}{18}xy}$$

7 次の計算をなさい。

$$\begin{aligned}(1) \quad & 3a\times 5b\times ab \\ & =3\times 5\times a\times a\times b\times b \\ & =15a^2b^2\end{aligned}$$

$$\underline{15a^2b^2}$$

$$\begin{aligned}(2) \quad & -7xy\times 6x\div 14xy \\ & =-\frac{7xy\times 6x}{14xy} \\ & =-3x\end{aligned}$$

$$\underline{-3x}$$

$$\begin{aligned}(3) \quad & 18ab^2\div(-9b)\times(-2) \\ & =\frac{18ab^2\times 2}{9b} \\ & =4ab\end{aligned}$$

$$\underline{4ab}$$

$$\begin{aligned}(4) \quad & 28xy^2\div 12x\div(-7y) \\ & =-\frac{28xy^2}{12x\times 7y} \\ & =-\frac{1}{3}y\end{aligned}$$

$$\underline{-\frac{1}{3}y}$$

8 $x=2$, $y=-3$ のとき、次の式の値を求めなさい。

$$\begin{aligned}(1) \quad & x+3y-2(4x+y) \\ & =x+3y-8x-2y \\ & =-7x+y \\ & =-7\times 2+(-3) \\ & =-14-3 \\ & =-17\end{aligned}$$

$$\underline{-17}$$

$$\begin{aligned}(2) \quad & 12x\div(-4xy)\times x^2y^2 \\ & =-\frac{12x\times x^2y^2}{4xy} \\ & =-3x^2y \\ & =-3\times 2^2\times(-3) \\ & =-3\times 4\times(-3) \\ & =36\end{aligned}$$

$$\underline{36}$$