

四則の混じった式の計算

学習日 月 日

年 組 番 氏名

(1) 次の計算をしてみましょう。

① $(-6a) \times (-2ab)$

② $(-3x) \times (2x) \times (-x)$

⑨ $6(2x-3y) - 8(x-2y)$

⑩ $(a-b) - (b-c) - (c-a)$

③ $(-2a)^3 \div (-3a)$

④ $a^2 \times 2ab \div a$

⑪ $a - \{4b - (a - 3b)\}$

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

⑤ $(-3x)^2 \div (-6x) \times 4x$

⑥ $12x^4y^2 \div (-2xy)^2 \div 3x$

⑬ $\frac{1}{4}(2a-b) - \frac{1}{4}(a+3b)$

⑭ $\frac{4x-3y}{3} - \frac{2x-3y}{6}$

⑦ $(2x-3y) + 4(-x+2y)$

⑧ $2(4a-b) - (-5a+b)$

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$$\begin{aligned} \textcircled{1} \quad & (-6a) \times (-2ab) \\ & = 12a^2b \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & (-3x) \times (2x) \times (-x) \\ & = 6x^3 \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad & 6(2x-3y) - 8(x-2y) \\ & = 12x - 18y - 8x + 16y \\ & = 4x - 2y \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad & (a-b) - (b-c) - (c-a) \\ & = a - b - b + c - c + a \\ & = 2a - 2b \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & (-2a)^3 \div (-3a) \\ & = -8a^3 \div (-3a) \\ & = \frac{-8a^3}{-3a} \\ & = \frac{8}{3} a^2 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & a^2 \times 2ab \div a \\ & = \frac{a^2 \times 2ab}{a} \\ & = 2a^2b \end{aligned}$$

$$\begin{aligned} \textcircled{11} \quad & a - \{4b - (a - 3b)\} \\ & = a - (4b - a + 3b) \\ & = a - 4b + a - 3b \\ & = 2a - 7b \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad & \frac{1}{2}(2x^2-6) - \frac{1}{3}\{-9x^2-6(1-x)\} \\ & = x^2 - 3 - \frac{1}{3}(-9x^2 - 6 + 6x) \\ & = x^2 - 3 + 3x^2 + 2 - 2x \\ & = 4x^2 - 2x - 1 \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & (-3x)^2 \div (-6x) \times 4x \\ & = 9x^2 \div (-6x) \times 4x \\ & = -\frac{9x^2 \times 4x}{6x} \\ & = -6x^2 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & 12x^4y^2 \div (-2xy)^2 \div 3x \\ & = 12x^4y^2 \div 4x^2y^2 \div 3x \\ & = \frac{12x^4y^2}{4x^2y^2 \times 3x} \\ & = x \end{aligned}$$

$$\begin{aligned} \textcircled{13} \quad & \frac{1}{4}(2a-b) - \frac{1}{4}(a+3b) \\ & = \frac{(2a-b) - (a+3b)}{4} \\ & = \frac{2a-b-a-3b}{4} \\ & = \frac{a-4b}{4} \\ & \left(= \frac{1}{4}a - b \right) \end{aligned}$$

$$\begin{aligned} \textcircled{14} \quad & \frac{4x-3y}{3} - \frac{2x-3y}{6} \\ & = \frac{2(4x-3y)}{2 \times 3} - \frac{2x-3y}{6} \\ & = \frac{8x-6y-2x+3y}{6} \\ & = \frac{6x-3y}{6} = \frac{3(2x-y)}{6} \\ & = \frac{2x-y}{2} \left(= x - \frac{1}{2}y \right) \end{aligned}$$

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

$$\begin{aligned} \textcircled{8} \quad & 2(4a-b) - (-5a+b) \\ & = 8a - 2b + 5a - b \\ & = 13a - 3b \end{aligned}$$