

NO1

例1

$$\begin{aligned}
 & -2a(3a-5b) \\
 &= -2a \times 3a - 2a \times (-5b) \\
 &= -6a^2 + 10ab
 \end{aligned}$$

+	×	+	=	+	+	×	-	=	-
+	×	-	=	-	-	×	-	=	+

NO1

例3

$$\begin{aligned}
 & \frac{3}{4}x(12x-10y) \\
 &= \frac{3}{4}x \times 12x + \frac{3}{4}x \times (-10y) \\
 &= 9x^2 - \frac{15}{2}xy
 \end{aligned}$$

NO2

例5

$$\begin{aligned}
 & (6ab^2-9a^2b) \div 3ab \\
 &= \frac{6abb}{1 \cdot 3ab} - \frac{9aab}{1 \cdot 3ab} \\
 &= 2b - 3a
 \end{aligned}$$

整数
分母として
分配法則!

NO2

例7

$$\begin{aligned}
 & 2a(4a+3) - 3a(5a-2) \\
 &= 2a \times 4a + 2a \times 3 - 3a \times 5a - 3a \times (-2) \\
 &= 8a^2 + 6a - 15a^2 + 6a \\
 &= -7a^2 + 12a
 \end{aligned}$$

(A+B)(C+D)の多項式の乗法
多項式 多項式

NO3

例8

$$\begin{aligned}
 & (4a+3b)(5a-2b) \\
 &= 20a^2 - 8ab + 15ab - 6b^2 \\
 &= 20a^2 + 7ab - 6b^2
 \end{aligned}$$

NO1

例2

$$\begin{aligned}
 & (3x+2y-1) \times 6x^2 \\
 &= 3x \times 6x^2 + 2y \times 6x^2 - 1 \times 6x^2 \\
 &= 18x^3 + 12x^2y - 6x^2
 \end{aligned}$$

NO1

例4

$$\begin{aligned}
 & (8x-6y-1) \times \frac{3}{2}xy \\
 &= \frac{8x}{1} \times \frac{3xy}{2} - \frac{6y}{1} \times \frac{3xy}{2} - 1 \times \frac{3xy}{2} \\
 &= 12x^2y - 9xy^2 - \frac{3xy}{2}
 \end{aligned}$$

NO2

例6

$$\begin{aligned}
 & (4x^2-5xy) \div \frac{2}{3}x \\
 &= (4x^2-5xy) \times \frac{3}{2x} \\
 &= \frac{4x^2}{1} \times \frac{3}{2x} - \frac{5xy}{1} \times \frac{3}{2x} \\
 &= 6x - \frac{15}{2}y
 \end{aligned}$$

÷分数
↓
×逆数

NO2

例8

$$\begin{aligned}
 & \frac{1}{4}x(3x+2y) - \frac{1}{5}x(x+4y) \\
 &= \frac{1}{4}x \times 3x + \frac{1}{4}x \times 2y - \frac{1}{5}x \times x - \frac{1}{5}x \times 4y \\
 &= \frac{3}{4}x^2 - \frac{1}{2}xy - \frac{1}{5}x^2 - \frac{4}{5}xy \\
 &= \left(\frac{15}{20} - \frac{4}{20}\right)x^2 + \left(-\frac{5}{10} - \frac{8}{10}\right)xy \\
 &= \frac{11}{20}x^2 - \frac{13}{10}xy
 \end{aligned}$$

通分して
たし算・
ひき算

NO3

例9

$$\begin{aligned}
 & (2x+y)(6x-3y-1) \\
 &= 12x^2 - 6xy - 2x + 6xy - 3y^2 - y \\
 &= 12x^2 - 2x - 3y^2 - y
 \end{aligned}$$