

例題 1

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

例題 2

$$\begin{aligned}
 & (8a - 6b) \times \frac{1}{2} \\
 &= {}^4_8a \times \frac{1}{\cancel{2}_1} - {}^3_6b \times \frac{1}{\cancel{2}_1} \\
 &= 4a - 3b
 \end{aligned}$$

例題 3

$$\begin{aligned}
 & 5(x - 2y) - 3(4x - y) \\
 &= 5 \times x + 5 \times (-2y) - 3 \times 4x - 3 \times (-y) \\
 &= 5x - 10y - 12x + 3y \\
 &= -7x - 7y
 \end{aligned}$$

例題 4

$$\begin{aligned}
 & \frac{1}{4}(3a - 2b) - \frac{1}{5}(a + 4b) \\
 &= \frac{1}{4} \times 3a + \frac{1}{\cancel{4}_2} \times (-2b) - \frac{1}{5} \times a + \frac{1}{5} \times 4b \\
 &= \frac{3}{4}a - \frac{1}{2}b - \frac{1}{5}a - \frac{4}{5}b \\
 &= \left(\frac{15}{20} - \frac{4}{20}\right)a + \left(-\frac{5}{10} - \frac{8}{10}\right)b \\
 &= \frac{11}{20}a - \frac{13}{10}b
 \end{aligned}$$

例題 5

$$\begin{aligned}
 & (6a - 9b) \div \overset{\text{整数}}{3} \\
 &= \frac{\overset{2}{6}a}{\cancel{3}_1} - \frac{\overset{3}{9}b}{\cancel{3}_1} \\
 &= 2a - 3b
 \end{aligned}$$

分母として  
分配法則!

例題 6

$$\begin{aligned}
 & (4x - 5y) \div \overset{\text{分数}}{\frac{2}{3}} \\
 &= (4x - 5y) \times \overset{\times \text{逆数}}{\frac{3}{2}} \\
 &= {}^2_4x \times \frac{3}{\cancel{2}_1} - 5y \times \frac{3}{2} \\
 &= 6x - \frac{15}{2}y
 \end{aligned}$$

重要ポイント

分母に何もかけなくとも分子の式は必ず( )でくる

例題 7

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

符号を変える

約分できる場合

$$\frac{\overset{3}{\cancel{6}}x + \overset{1}{\cancel{2}}y}{\cancel{4}} = \frac{3x + y}{2}$$

3つの数が同時に約分できるときだけ約分する!

例題 8

$$\begin{aligned}
 & \frac{x}{2} - 2y - \frac{x - y}{3} \\
 &= \frac{\times 3}{2 \times 3} x - \frac{\times 6}{1 \times 6} 2y - \frac{\times 2}{3 \times 2} (x - y) \\
 &= \frac{3x - 12y - 2(x - y)}{6} \\
 &= \frac{3x - 12y - 2x + 2y}{6} \\
 &= \frac{x - 10y}{6}
 \end{aligned}$$

通分