

〈問題〉 次の計算をせよ。

$$\begin{aligned}
 (1) \quad 2x(x/4) + 3x(x/5) &= 2x \times x + 2x \times (-4) + 3x \times x + 3x \times 5 \\
 &= 2x^2 - 8x + 3x^2 + 15x \\
 &= 5x^2 + 7x
 \end{aligned}$$

$$\begin{aligned}
 (2) \quad 4a(a/3) - 2a(3a/b) &= 4a \times a + 4a \times (-3) + (-2a) \times 3a + (-2a) \times (-b) \\
 &= 4a^2 - 12a - 6a^2 + 2a \\
 &= -2a^2
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad -3x(5/x) - 4x(1/x) &= -3x \times 5 + (-3x) \times (-x) + (-4x) \times 1 + (-4x) \times x \\
 &= -15x + 3x^2 - 4x - 4x^2 \\
 &= -x^2 - 19x
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad (8a^2b + 2b) \div (-2b) &= (8a^2b + 2b) \times \left(-\frac{1}{2b}\right) \\
 &= 8a^2b \times \left(-\frac{1}{2b}\right) + 2b \times \left(-\frac{1}{2b}\right) \\
 &= -4a^2 - 1
 \end{aligned}$$

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

$$\begin{aligned}
 (6) \quad (x^2y + xy^2 - x) \div x &= (x^2y + xy^2 - x) \times \frac{1}{x} \\
 &= x^2y \times \frac{1}{x} + xy^2 \times \frac{1}{x} + (-x) \times \frac{1}{x} \\
 &= xy + y^2 - 1
 \end{aligned}$$

$$\begin{aligned}
 (7) \quad (12a^2b - 8ab) \div \left(-\frac{4}{5}ab\right) &= (12a^2b - 8ab) \times \left(-\frac{5}{4ab}\right) \\
 &= 12a^2b \times \left(-\frac{5}{4ab}\right) + (-8ab) \times \left(-\frac{5}{4ab}\right) \\
 &= -15a + 10
 \end{aligned}$$