

1 解答 (1) $2ab + 3ac$ (2) $3x^2 - 6xy$ (3) $-2x^2 + 10x$ (4) $-12ab - 20b^2$

(1) $a(2b + 3c) = a \times 2b + a \times 3c$
 $= 2ab + 3ac$

(2) $(x - 2y) \times 3x = x \times 3x - 2y \times 3x$
 $= 3x^2 - 6xy$

(3) $-2x(x - 5) = -2x \times x - 2x \times (-5)$
 $= -2x^2 + 10x$

(4) $(3a + 5b) \times (-4b) = 3a \times (-4b) + 5b \times (-4b)$
 $= -12ab - 20b^2$

2 解答 (1) $2a + 3$ (2) $-x + 2$ (3) $2a + 3b$ (4) $-3x - 4y$

(1) $(2a^2 + 3a) \div a = (2a^2 + 3a) \times \frac{1}{a}$
 $= \frac{2a^2}{a} + \frac{3a}{a}$
 $= 2a + 3$

(2) $(3x^2 - 6x) \div (-3x) = (3x^2 - 6x) \times \left(-\frac{1}{3x}\right)$
 $= -\frac{3x^2}{3x} + \frac{6x}{3x}$
 $= -x + 2$

(3) $(8a^2 + 12ab) \div 4a = (8a^2 + 12ab) \times \frac{1}{4a}$
 $= \frac{8a^2}{4a} + \frac{12ab}{4a}$
 $= 2a + 3b$

(4) $(15x^2y + 20xy^2) \div (-5xy) = (15x^2y + 20xy^2) \times \left(-\frac{1}{5xy}\right)$
 $= -\frac{15x^2y}{5xy} - \frac{20xy^2}{5xy}$
 $= -3x - 4y$

3 解答 (1) $4x^2 - x$ (2) $3x^2 - 10xy + 6y^2$ (3) $11x - 12$ (4) $5x^2 - 3x$

(1) $2x(x + 1) + x(2x - 3) = 2x^2 + 2x + 2x^2 - 3x$
 $= 4x^2 - x$

(2) $3x(x - 2y) - 2y(2x - 3y) = 3x^2 - 6xy - 4xy + 6y^2$
 $= 3x^2 - 10xy + 6y^2$

(3) $3(x^2 + 2x - 4) - x(3x - 5) = 3x^2 + 6x - 12 - 3x^2 + 5x$
 $= 11x - 12$

(4) $x(2x - 1) - (6x^2 - 9x^3) \div 3x = 2x^2 - x - (2x - 3x^2)$
 $= 2x^2 - x - 2x + 3x^2$
 $= 5x^2 - 3x$