

4 (7) 与式 = $a^2 - 2a - 6a + 12$

(10) 与式 = $3x^2 - 15x + 2x - 10$

(16) 与式 = $6x^2 - 4xy + 9xy - 6y^2$

5 (1) 与式 = $a(2a + b - 5) - 3(2a + b - 5)$

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

(3) 与式 = $2x(x - 2) - 3y(x - 2) + (x - 2)$

(4) 与式 = $3a(3a - b) + 2b(3a - b) - (3a - b)$

◆練習問題◆

→p.13

1 (1) $a^2 + 7ab$ (2) $3x - 6x^2$

(3) $-6a^2b + 2ab^2$ (4) $2x^2 - x$

(5) $4x^2 - 6xy$ (6) $-3a^2 + 2ab - a$

(7) $3x - 2y$ (8) $3x + y$

(9) $-2x + 3y - 4$ (10) $2a - 3b + 1$

(11) $12a + 2b$ (12) $-3x + 2y$

2 (1) $4x^2 + 8x + 3$ (2) $9x^2 - 21x + 10$

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

(5) $3b^2 - 10b - 48$ (6) $-3a^2 + 19a - 20$

(7) $2x^2 + 7xy + 3y^2$ (8) $4x^2 - 7xy + 3y^2$

(9) $3a^2 - 5ab - 2b^2$ (10) $-6a^2 - ab + 12b^2$

(11) $-2a^2 + 3ab - b^2$ (12) $-x^2 + 7xy - 10y^2$

(13) $x^3 + 2x^2 - 7x + 4$ (14) $a^2 + 3a - 4b^2 + 6b$

(15) $2ab + 4a - b^2 + b + 6$

(16) $2x^3 - 5x^2 + 8x - 3$

3 (1) $5x^2$ (2) $3x^2 - 5$

(3) $2a^2 - 4ab - 6b^2$ (4) $4x^2 - xy$

(5) $x^2 - 5x - 4$ (6) $2a^2 - b^2$

4 (1) $10x^2 - 7x - 12$ (2) $x^3 + 4x^2 + x - 6$

解説

1 (5) 与式 = $8x \times \frac{1}{2}x - 8x \times \frac{3}{4}y$

(10) 与式 = $\frac{6a^2b}{3ab} - \frac{9ab^2}{3ab} + \frac{3ab}{3ab}$

3 (1) 与式 = $3x^2 + 6x + 2x^2 - 6x$

(2) 与式 = $3x^2 + 12x - 5 - 12x$

(3) 与式 = $2a^2 - ab - 3ab - 6b^2$

(4) 与式 = $-2x^2 + 2xy + 6x^2 - 3xy$

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

(6) 与式 = $2a^2 + 4ab - 3ab - 6b^2 - ab + 5b^2$

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

$$\begin{array}{r} \times) 5x + 4 \\ \hline 10x^2 - 15x \\ \hline 8x - 12 \\ \hline 10x^2 - 7x - 12 \end{array} \quad \begin{array}{r} \times) x + 3 \\ \hline x^3 + x^2 - 2x \\ \hline 3x^2 + 3x - 6 \\ \hline x^3 + 4x^2 + x - 6 \end{array}$$

2 多項式の計算(乗法公式)

◆問題◆

→p.14~p.16

問題1 (1) $x^2 + 5x + 6$

(2) $x^2 + 12x + 32$

(3) $x^2 + 7x + 6$

(4) $x^2 - 8x + 15$

(5) $x^2 - 10x + 9$

(6) $x^2 - 16x + 48$

(7) $x^2 + 3x - 18$

(8) $x^2 - x - 20$

(9) $x^2 + x - 56$

(10) $x^2 + 4x - 5$

(11) $x^2 - 2x - 48$

(12) $x^2 - x - 6$

(13) $a^2 - 3a + 2$

(14) $y^2 + 4y - 21$

(15) $m^2 - 3m - 10$

(16) $t^2 - 2t - 24$

(17) $b^2 - 18b + 80$

(18) $a^2 + 11a - 60$

問題2 (1) $x^2 + x + \frac{2}{9}$

(2) $x^2 + x - \frac{3}{4}$

(3) $y^2 - \frac{1}{4}y - \frac{1}{8}$

(4) $x^2 + 6xy + 8y^2$

(5) $x^2 - 4xy - 5y^2$

(6) $a^2 + ab - 6b^2$

問題3 (1) $4x^2 + 12x + 5$

(2) $9x^2 + 6x - 8$

(3) $25a^2 - 20a + 3$

(4) $16m^2 - 12m - 18$

(5) $x^2y^2 + 11xy + 28$

(6) $a^2b^2 + ab - 30$

問題4 (1) $x^2 + 6x + 9$

(2) $x^2 + 16x + 64$

(3) $x^2 + 2x + 1$

(4) $a^2 + 14a + 49$

(5) $x^2 - 8x + 16$

(6) $x^2 - 10x + 25$

(7) $x^2 - 4x + 4$

(8) $y^2 - 20y + 100$

(9) $x^2 - 2xy + y^2$

問題5 (1) $x^2 + 4xy + 4y^2$

(2) $x^2 - 6xy + 9y^2$

(3) $4x^2 + 20x + 25$

(4) $9x^2 - 12x + 4$

(5) $16a^2 + 8ab + b^2$

(6) $25x^2 - 20xy + 4y^2$

(7) $9m^2 + 24mn + 16n^2$ (8) $x^2 + x + \frac{1}{4}$

(9) $a^2 - \frac{2}{3}a + \frac{1}{9}$

問題6 (1) $x^2 - 9$

(2) $x^2 - 25$

(3) $a^2 - 36$

(4) $x^2 - 16$

(5) $m^2 - 1$

(6) $b^2 - 100$

問題7 (1) $9x^2 - 16$

(2) $64 - x^2$

(3) $25x^2 - y^2$

(4) $x^2 - 4y^2$

(5) $4a^2 - 49b^2$

(6) $4y^2 - 9x^2$

(7) $9b^2 - a^2$

(8) $x^2 - \frac{1}{4}$

(9) $a^2 - \frac{4}{9}$

問題8 (1) $2x^2 + 7x$

(2) $3x^2 + 1$

(3) $2x - 21$

(4) $8x + 80$

(5) $x^2 + x + 12$

(6) $3x^2 + 4x - 8$

問題9 (1) $x^2 + 2xy + y^2 - 4x - 4y - 12$

(2) $a^2 + 2ab + b^2 - 8a - 8b + 16$

(3) $a^2 + 4ab + 4b^2 - 9$