

1 多項式の計算

p3

練習 1

- ① $12x^2 - 8xy$ ② $-3a^2 - 15a^2b$ ③ $8x^3y - 2xy^2$
 ④ $20a^2b^2 + 12ab$ ⑤ $-2x^2y + 3x^2y^2$ ⑥ $3ab^2 + 4ab$

練習 2

- ① $4y - 3$ ② $-4a + 3$ ③ $\frac{5}{6} + \frac{y}{2}$
 ④ $-\frac{3}{2b} - \frac{3}{4a}$ ⑤ $6xy - 9y$ ⑥ $-\frac{5}{b} + \frac{20a}{3}$

練習 3

- ① $12x^2 - 17xy$ ② $8x^2 - 12xy + 15y^2$
 ③ $2xy + 3y^2$ ④ $-2x^2 + 14xy - 10y^2$

p4

練習 4

- ① $2ab + 5a - 8b - 20$ ② $6ab - 21a - 8b + 28$
 ③ $6x^2 + 9bx - 10ax - 15ab$ ④ $2ax + 8bx + 6ay + 24by$
 ⑤ $2x^2 - 4x - 30$ ⑥ $9a^2 - 6a - 8$
 ⑦ $x^2 - 16$ ⑧ $2a^2 - ab - 15b^2$

p5

- ⑨ $12x^2 + 7xy - 10y^2$ ⑩ $9a^2 - 25b^2$
 ⑪ $2a^3 + a^2 - 5a - 4$ ⑫ $a^3 + 8$
 ⑬ $ax^2 + 3ax - a - 2x^2 - 6x + 2$
 ⑭ $ax + ay + 4a - bx - by - 4b - 5x - 5y - 20$
 ⑮ $x^2 + xy - x - 6y^2 - 23y - 20$
 ⑯ $a^2 + 8ab - 3a + 16b^2 - 12b - 10$
 ⑰ $x^2 - 2xy + y^2 - 64$

p6

確認問題 1-1-A

- 1** ① $6x^2 - 15xy$ ② $-8ab^2 - 12b^2$ ③ $3x^2y - \frac{3}{2}xy^2$
2 ① $-2a + 3$ ② $\frac{1}{2} + \frac{5y}{4}$ ③ $4y - \frac{16}{3}$
3 ① $17x^2 - 2xy$ ② $8a^2 - 16ab - 5b^2$
4 ① $3xy + 4x - 6y - 8$ ② $a^2 + 3ay - 2ax - 6xy$
 ③ $2x^2 - 13x + 15$ ④ $a^2 + 7ab + 12b^2$
 ⑤ $a^3 + 27$ ⑥ $x^3 - 3x^2y + 5xy^2 - 3y^3$
 ⑦ $6x^2 + xy - 28x - 2y^2 - 7y + 30$

p7

確認問題 1-1-B

- 1** ① $15a^2 - 10ab$ ② $-6x^2y + 2x^2$ ③ $6x^3y + 8x^2y^2$
2 ① $-4b - 3$ ② $y - \frac{x}{2}$ ③ $\frac{2a}{3} + 4b$
3 ① $-5ax + 11ay$ ② $-3x^2 + 7xy - 12y^2$
4 ① $2xy - 16x - 5y + 40$ ② $12xy - 15bx - 4ay + 5ab$
 ③ $12a^2 - 11a - 15$ ④ $4x^2 - 9y^2$
 ⑤ $a^3 - a^2b - ab^2 + b^3$ ⑥ $x^3 - 1$
 ⑦ $5a^2 - 19ab + 4a - 4b^2 + 26b - 12$

2 乗法公式

p9

練習 1

- ① $x^2 + 7x + 10$ ② $x^2 + x - 12$ ③ $x^2 - 7x + 6$
 ④ $x^2 - 3x - 54$ ⑤ $x^2 - 7x - 8$ ⑥ $x^2 - 11x + 28$
 ⑦ $x^2 + 5x - 6$ ⑧ $x^2 + 9x + 20$ ⑨ $x^2 - 9x + 14$
 ⑩ $x^2 - 6xy - 7y^2$ ⑪ $x^2 - 4xy - 21y^2$ ⑫ $x^2 + 6xy + 8y^2$
 ⑬ $x^2 - 11xy + 30y^2$ ⑭ $x^2 + 12xy + 32y^2$ ⑮ $x^2 + 2xy - 15y^2$
 ⑯ $x^2 + 4xy - 45y^2$ ⑰ $x^2 - 12xy + 27y^2$ ⑱ $x^2 + 2xy - 3y^2$

練習 2

- ① $4x^2 + 4x - 15$ ② $16x^2 - 32x + 12$ ③ $9x^2 - 12x - 32$
 ④ $25x^2 + 15x - 4$ ⑤ $16x^2 - 8x - 63$ ⑥ $4x^2 + 22x + 30$
 ⑦ $9x^2 + 6x - 15$ ⑧ $25x^2 + 35x + 10$ ⑨ $4x^2 - 26x + 40$
 ⑩ $36x^2 + 48xy + 7y^2$ ⑪ $9x^2 + 6xy - 8y^2$ ⑫ $16x^2 + 8xy - 3y^2$
 ⑬ $4x^2 - 22xy + 24y^2$ ⑭ $9x^2 + 15xy - 14y^2$ ⑮ $64x^2 - 80xy + 9y^2$
 ⑯ $49x^2 - 7xy - 30y^2$ ⑰ $16x^2 - 4xy - 30y^2$ ⑱ $81x^2 - 108xy + 32y^2$

p11

練習 3

- ① $x^2 + 4x + 4$ ② $x^2 - 10x + 25$ ③ $x^2 + 2x + 1$
 ④ $x^2 - 6x + 9$ ⑤ $x^2 + 8x + 16$ ⑥ $x^2 - 16x + 64$
 ⑦ $x^2 - 14x + 49$ ⑧ $x^2 + 3x + \frac{9}{4}$ ⑨ $x^2 - x + \frac{1}{4}$
 ⑩ $x^2 + 6xy + 9y^2$ ⑪ $x^2 - 10xy + 25y^2$ ⑫ $x^2 + 12xy + 36y^2$
 ⑬ $x^2 + 8xy + 16y^2$ ⑭ $x^2 - 4xy + 4y^2$ ⑮ $x^2 + 18xy + 81y^2$
 ⑯ $x^2 - 2xy + y^2$ ⑰ $x^2 + xy + \frac{1}{4}y^2$ ⑱ $x^2 - 5xy + \frac{25}{4}y^2$

練習 4

- ① $4x^2 - 12x + 9$ ② $16x^2 - 16x + 4$ ③ $9x^2 + 24x + 16$
 ④ $25x^2 - 10x + 1$ ⑤ $16x^2 + 56x + 49$ ⑥ $4x^2 + 20x + 25$
 ⑦ $9x^2 - 30x + 25$ ⑧ $4x^2 + 12x + 9$ ⑨ $16x^2 + 8x + 1$
 ⑩ $4x^2 + 28xy + 49y^2$ ⑪ $9x^2 - 12xy + 4y^2$ ⑫ $16x^2 + 24xy + 9y^2$
 ⑬ $25x^2 + 20xy + 4y^2$ ⑭ $4x^2 - 20xy + 25y^2$ ⑮ $9x^2 + 30xy + 25y^2$
 ⑯ $36x^2 + 36xy + 9y^2$ ⑰ $16x^2 - 16xy + 4y^2$ ⑱ $4x^2 + 12xy + 9y^2$

p13

練習 5

- ① $x^2 - 4$ ② $x^2 - 25$ ③ $x^2 - 1$
 ④ $x^2 - 16$ ⑤ $x^2 - 9$ ⑥ $x^2 - 81$
 ⑦ $x^2 - 49$ ⑧ $x^2 - \frac{9}{4}$ ⑨ $x^2 - \frac{1}{4}$
 ⑩ $x^2 - 9y^2$ ⑪ $x^2 - 25y^2$ ⑫ $x^2 - 36y^2$
 ⑬ $9x^2 - 16y^2$ ⑭ $25x^2 - 4y^2$ ⑮ $4x^2 - 81y^2$
 ⑯ $16x^2 - 9y^2$ ⑰ $36x^2 - \frac{1}{9}y^2$ ⑱ $64x^2 - \frac{9}{16}y^2$

練習 6

- ① $x^2 - 6x + 9$ ② $x^2 + 6x - 16$ ③ $x^2 - 16$
 ④ $5x^2 + 9x - 2$ ⑤ $x^2 + 14x + 49$ ⑥ $x^2 + 15x + 50$
 ⑦ $x^2 - 25$ ⑧ $2x^2 - 3x - 9$ ⑨ $16x^2 + 8x + 1$
 ⑩ $4x^2 - 24x + 35$ ⑪ $25x^2 - y^2$ ⑫ $9x^2 + 6xy + y^2$
 ⑬ $8x^2 + 6x - 2$ ⑭ $4x^2 - 20xy + 25y^2$ ⑮ $9a^2 - 25y^2$
 ⑯ $36x^2 + 48xy + 16y^2$ ⑰ $16x^2 + 12xy - 10y^2$ ⑱ $4x^2 + 12xy + 9y^2$