| | 展開せよ | | | | 因数分解せよ | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | $am+bm$ | 21 | $x^2-2x+1$ | 1 | $a(b-c)$ | 21 | $(x+y)(x-y)$ |
| 2 | $3a^2-7ab$ | 22 | $x^2+6x+9$ | 2 | $x(7x-y)$ | 22 | $(a+6)(a-6)$ |
| 3 | $15x^2y-12xy^2$ | 23 | $x^2+12x+36$ | 3 | $8b(3a^2-b)$ | 23 | $(x+9)(x-9)$ |
| 4 | $3xz+6yz+9z^2$ | 24 | $x^2-14x+49$ | 4 | $3m(2a+3b+4c)$ | 24 | $(a+5)(a-5)$ |
| 5 | $-28a^2x+20ax^2-4ax$ | 25 | $x^2+18x+81$ | 5 | $5xy(7x-5y+1)$ | 25 | $(7+b)(7-b)$ |
| 6 | $x^2+8x+15$ | 26 | $x^2-y^2$ | 6 | $(x+3)(x+4)$ | 26 | $(2x-3)^2$ |
| 7 | $x^2+x-20$ | 27 | $a^2-4$ | 7 | $(x+7)(x-5)$ | 27 | $(4x+5)^2$ |
| 8 | $x^2-4x-21$ | 28 | $x^2-25$ | 8 | $(x-8)(x+2)$ | 28 | $(3xy+2)^2$ |
| 9 | $x^2-11x+30$ | 29 | $a^2-64$ | 9 | $(x-3)(x-5)$ | 29 | $(x-\frac{1}{2}y)^2$ |
| 10 | $x^2-5x-14$ | 30 | $100-b^2$ | 10 | $(x+4)(x-7)$ | 30 | $(x+\frac{1}{3})^2$ |
| 11 | $x^2+14x+48$ | 31 | $x^2-6xy+9y^2$ | 11 | $(x-5)(x-4)$ | 31 | $(4x+3y)(4x-3y)$ |
| 12 | $x^2-12x+27$ | 32 | $25x^2+10xy+y^2$ | 12 | $(x+8)(x-7)$ | 32 | $(2a+5)(2a-5)$ |
| 13 | $x^2+2x-35$ | 33 | $x^2+\frac{1}{2}x+\frac{1}{16}$ | 13 | $(x-9)(x+6)$ | 33 | $(x+\frac{1}{4}y)(x-\frac{1}{4}y)$ |
| 14 | $x^2-x-56$ | 34 | $\frac{1}{4}x^2-2xy+4y^2$ | 14 | $(x+3)(x-2)$ | 34 | $(\frac{1}{2}a+\frac{1}{3}b)(\frac{1}{2}a-\frac{1}{3}b)$ |
| 15 | $x^2-7x+12$ | 35 | $x^2+6xy+5y^2$ | 15 | $(x+2)(x-12)$ | 35 | $(b+a)(b-a)$ |
| 16 | $x^2+9x+20$ | 36 | $x^2-xy+12y^2$ | 16 | $(x-2)^2$ | 36 | $a(x+y)(x-y)$ |
| 17 | $x^2-2x-8$ | 37 | $9a^2-1$ | 17 | $(x+4)^2$ | 37 | $a(x-7)(x+5)$ |
| 18 | $x^2+2x-63$ | 38 | $16x^2-25y^2$ | 18 | $(x+8)^2$ | 38 | $b(a+b)(a-b)$ |
| 19 | $x^2-7x+6$ | 39 | $a^2-36b^2$ | 19 | $(x-10)^2$ | 39 | $3a(x+4)^2$ |
| 20 | $x^2-x-42$ | 40 | $x^2-\frac{1}{9}y^2$ | 20 | $(x+5)^2$ | 40 | $-5(x-3y)^2$ |

## 次の式を簡単にせよ

| | | | |
|---|---|---|---|
| 1 | $2x^2+1$ | 7 | $8x-76$ |
| 2 | $-2x-11$ | 8 | $-21$ |
| 3 | $x-23$ | 9 | $3x-31$ |
| 4 | $-6x+34$ | 10 | $-10x-74$ |
| 5 | $18$ | 11 | $x^2+27y^2$ |
| 6 | $12x-72$ | 12 | $8x^2-6xy+5y^2$ |

| 展開せよ | | | | 因数分解せよ | | | |
|---|---|---|---|---|---|---|---|
| 1 | $ax - ay$ | 21 | $x^2 - 4x + 4$ | 1 | $m(b + c)$ | 21 | $(x + y)(x - y)$ |
| 2 | $5ax - 3bx$ | 22 | $x^2 + 8x + 16$ | 2 | $x(8x - 3y)$ | 22 | $(a + 4)(a - 4)$ |
| 3 | $42a^2b - 7ab^2$ | 23 | $x^2 + 10x + 25$ | 3 | $5b(4a^2 - b)$ | 23 | $(x + 10)(x - 10)$ |
| 4 | $6cx - 2cy + 4cz$ | 24 | $x^2 - 12x + 36$ | 4 | $2c(2x + 3y + z)$ | 24 | $(a + 6)(a - 6)$ |
| 5 | $-35a^2x - 15ax^2 + 10ax$ | 25 | $x^2 + 16x + 64$ | 5 | $3xy(9x - 5y + 2)$ | 25 | $(7 + x)(7 - x)$ |
| 6 | $x^2 + 5x + 6$ | 26 | $a^2 - b^2$ | 6 | $(x + 3)(x + 6)$ | 26 | $(3x - 1)^2$ |
| 7 | $x^2 + 2x - 15$ | 27 | $a^2 - 9$ | 7 | $(x + 7)(x - 2)$ | 27 | $(5x + 2)^2$ |
| 8 | $x^2 - 2x - 8$ | 28 | $x^2 - 25$ | 8 | $(x - 3)(x + 2)$ | 28 | $(4xy + 3)^2$ |
| 9 | $x^2 - 12x + 35$ | 29 | $a^2 - 64$ | 9 | $(x - 2)(x - 5)$ | 29 | $(x - \frac{1}{2}y)^2$ |
| 10 | $x^2 - 3x - 10$ | 30 | $81 - x^2$ | 10 | $(x + 9)(x - 7)$ | 30 | $(x + \frac{1}{5})^2$ |
| 11 | $x^2 + 15x + 56$ | 31 | $x^2 - 6xy + 9y^2$ | 11 | $(x - 6)(x - 4)$ | 31 | $(6x + 3y)(6x - 3y)$ |
| 12 | $x^2 - 13x + 36$ | 32 | $49x^2 + 14xy + y^2$ | 12 | $(x + 8)(x - 9)$ | 32 | $(7a + 3)(7a - 3)$ |
| 13 | $x^2 - 4x - 5$ | 33 | $x^2 + x + \frac{1}{4}$ | 13 | $(x - 9)(x + 3)$ | 33 | $(x + \frac{1}{5}y)(x - \frac{1}{5}y)$ |
| 14 | $x^2 - 2x - 48$ | 34 | $\frac{1}{9}x^2 - \frac{4}{3}xy + 4y^2$ | 14 | $(x + 6)(x - 1)$ | 34 | $(\frac{1}{4}a + \frac{1}{3}b)(\frac{1}{4}a - \frac{1}{3}b)$ |
| 15 | $x^2 - 9x + 20$ | 35 | $x^2 + 5xy + 6y^2$ | 15 | $(x + 3)(x - 12)$ | 35 | $(y + x)(y - x)$ |
| 16 | $x^2 + 12x + 27$ | 36 | $x^2 - 2xy - 15y^2$ | 16 | $(x - 1)^2$ | 36 | $x(a + b)(a - b)$ |
| 17 | $x^2 - x - 6$ | 37 | $25a^2 - 1$ | 17 | $(x + 3)^2$ | 37 | $a(x + 4)(x - 7)$ |
| 18 | $x^2 + 4x - 45$ | 38 | $81x^2 - 16y^2$ | 18 | $(x + 7)^2$ | 38 | $a(a + b)(a - b)$ |
| 19 | $x^2 - 4x + 3$ | 39 | $a^2 - 49b^2$ | 19 | $(x - 9)^2$ | 39 | $2a(x - 5)^2$ |
| 20 | $x^2 - 3x - 54$ | 40 | $x^2 - \frac{1}{16}y^2$ | 20 | $(x + 10)^2$ | 40 | $-3a(x - 3)(x + 5)$ |

## 次の式を簡単にせよ

| | | | |
|---|---|---|---|
| 1 | $2x^2 + 9$ | 7 | $7x - 60$ |
| 2 | $-3x - 9$ | 8 | $-2x - 12$ |
| 3 | $x - 32$ | 9 | $4x + 4$ |
| 4 | $-5x + 19$ | 10 | $-10x - 89$ |
| 5 | $8$ | 11 | $x^2 - 2x + 21y^2$ |
| 6 | $14x - 98$ | 12 | $3x^2 - 4xy + 10y^2$ |