因数分解 発展（20問）　版C

なまえ：＿＿＿＿＿＿＿＿＿＿＿＿　　日づけ：＿＿＿＿＿＿

(1) $x^2 - y^2 + 2y - 1 =$

(2) $x^4 - 35x^2 - 36 =$

(3) $x^2 - y^2 + 10y - 25 =$

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

(5) $x^2 + 5xy + 6y^2 + 7x + 18y + 12 =$

(6) $(x + y)^2 + 13(x + y) + 42 =$

(7) $3x^2 + 9x - 54 =$

(8) $15x^2 + 55x - 20 =$

(9) $12x^2 - 8x - 4 =$

(10) $x^2 + 5xy + 6y^2 + 2y - 4 =$

(11) $x^4 - 13x^2 + 36 =$

(12) $x^2 - 9y^2 - 2x - 18y - 8 =$

(13) $12x^2 - 16x - 16 =$

(14) $(x + y)^2 - 6(x + y) - 7 =$

(15) $x^2 - y^2 + 8y - 16 =$

(16) $x^2 - 9y^2 + 10x + 25 =$

(17) $x^4 - 52x^2 + 576 =$

(18) $x^4 + 2x^2 - 24 =$

(19) $x^2 - y^2 + 12y - 36 =$

(20) $(x + y)^2 + 9(x + y) + 14 =$

因数分解 発展（20問）　版Cの答え

※ 答えの中に、まだ分解できる因数が残っていないかを確かめてください。

(1) $x^2 - y^2 + 2y - 1$
$= (x - y + 1)(x + y - 1)$

(2) $x^4 - 35x^2 - 36$
$= (x - 6)(x + 6)(x^2 + 1)$

(3) $x^2 - y^2 + 10y - 25$
$= (x - y + 5)(x + y - 5)$

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

(5) $x^2 + 5xy + 6y^2 + 7x + 18y + 12$
$= (x + 2y + 4)(x + 3y + 3)$

(6) $(x + y)^2 + 13(x + y) + 42$
$= (x + y + 6)(x + y + 7)$

(7) $3x^2 + 9x - 54$
$= 3(x - 3)(x + 6)$

(8) $15x^2 + 55x - 20$
$= 5(x + 4)(3x - 1)$

(9) $12x^2 - 8x - 4$
$= 4(x - 1)(3x + 1)$

(10) $x^2 + 5xy + 6y^2 + 2y - 4$
$= (x + 2y + 2)(x + 3y - 2)$

(11) $x^4 - 13x^2 + 36$
$= (x - 3)(x - 2)(x + 2)(x + 3)$

(12) $x^2 - 9y^2 - 2x - 18y - 8$
$= (x - 3y - 4)(x + 3y + 2)$

(13) $12x^2 - 16x - 16$
$= 4(x - 2)(3x + 2)$

(14) $(x + y)^2 - 6(x + y) - 7$
$= (x + y - 7)(x + y + 1)$

(15) $x^2 - y^2 + 8y - 16$
$= (x - y + 4)(x + y - 4)$

(16) $x^2 - 9y^2 + 10x + 25$
$= (x - 3y + 5)(x + 3y + 5)$

(17) $x^4 - 52x^2 + 576$
$= (x - 6)(x - 4)(x + 4)(x + 6)$

(18) $x^4 + 2x^2 - 24$
$= (x - 2)(x + 2)(x^2 + 6)$

(19) $x^2 - y^2 + 12y - 36$
$= (x - y + 6)(x + y - 6)$

(20) $(x + y)^2 + 9(x + y) + 14$
$= (x + y + 2)(x + y + 7)$