因数分解 発展（20問）　版N

なまえ：＿＿＿＿＿＿＿＿＿＿＿＿　　日づけ：＿＿＿＿＿＿

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

(2) $24x^2 - 20x - 16 =$

(3) $(x + y)^2 + (x + y) - 12 =$

(4) $x^4 - 29x^2 + 100 =$

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

(6) $(x + y)^2 + 3(x + y) - 18 =$

(7) $12x^2 + 38x + 20 =$

(8) $x^2 + xy - 6y^2 + 10x + 5y + 25 =$

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

(10) $8x^2 - 36x - 72 =$

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

(12) $(x + y)^2 - 4(x + y) - 12 =$

(13) $(x + y)^2 - 2(x + y) - 35 =$

(14) $x^4 - 21x^2 - 100 =$

(15) $6x^2 - 21x + 15 =$

(16) $x^2 + xy - 2y^2 + 3x + 2 =$

(17) $x^4 - 41x^2 + 400 =$

(18) $x^2 - y^2 + 6y - 9 =$

(19) $x^4 - x^2 - 12 =$

(20) $x^2 - 9y^2 - 5x + 9y + 4 =$

因数分解 発展（20問）　版N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) $x^2 - y^2 + 4y - 4$
$= (x - y + 2)(x + y - 2)$

(2) $24x^2 - 20x - 16$
$= 4(2x + 1)(3x - 4)$

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

(4) $x^4 - 29x^2 + 100$
$= (x - 5)(x - 2)(x + 2)(x + 5)$

(5) $x^2 + xy - 6y^2 - 3x + y + 2$
$= (x - 2y - 1)(x + 3y - 2)$

(6) $(x + y)^2 + 3(x + y) - 18$
$= (x + y - 3)(x + y + 6)$

(7) $12x^2 + 38x + 20$
$= 2(2x + 5)(3x + 2)$

(8) $x^2 + xy - 6y^2 + 10x + 5y + 25$
$= (x - 2y + 5)(x + 3y + 5)$

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

(10) $8x^2 - 36x - 72$
$= 4(x - 6)(2x + 3)$

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

(12) $(x + y)^2 - 4(x + y) - 12$
$= (x + y - 6)(x + y + 2)$

(13) $(x + y)^2 - 2(x + y) - 35$
$= (x + y - 7)(x + y + 5)$

(14) $x^4 - 21x^2 - 100$
$= (x - 5)(x + 5)(x^2 + 4)$

(15) $6x^2 - 21x + 15$
$= 3(x - 1)(2x - 5)$

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

(17) $x^4 - 41x^2 + 400$
$= (x - 5)(x - 4)(x + 4)(x + 5)$

(18) $x^2 - y^2 + 6y - 9$
$= (x - y + 3)(x + y - 3)$

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

(20) $x^2 - 9y^2 - 5x + 9y + 4$
$= (x - 3y - 1)(x + 3y - 4)$