

因数分解 発展（20問） 版J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認してください。

$$\begin{aligned}(1) \quad & x^4 - 40x^2 + 144 \\ & = (x - 6)(x - 2)(x + 2)(x + 6)\end{aligned}$$

$$\begin{aligned}(2) \quad & x^4 + 4x^2 - 5 \\ & = (x - 1)(x + 1)(x^2 + 5)\end{aligned}$$

$$\begin{aligned}(3) \quad & x^2 - y^2 + 6y - 9 \\ & = (x - y + 3)(x + y - 3)\end{aligned}$$

$$\begin{aligned}(4) \quad & 6x^2 - 3x - 9 \\ & = 3(x + 1)(2x - 3)\end{aligned}$$

$$\begin{aligned}(5) \quad & x^2 - y^2 + 4y - 4 \\ & = (x - y + 2)(x + y - 2)\end{aligned}$$

$$\begin{aligned}(6) \quad & (x + y)^2 - 3(x + y) - 4 \\ & = (x + y - 4)(x + y + 1)\end{aligned}$$

$$\begin{aligned}(7) \quad & x^4 - 17x^2 + 16 \\ & = (x - 4)(x - 1)(x + 1)(x + 4)\end{aligned}$$

$$\begin{aligned}(8) \quad & 24x^2 + 92x + 80 \\ & = 4(2x + 5)(3x + 4)\end{aligned}$$

$$\begin{aligned}(9) \quad & (x + y)^2 - (x + y) - 42 \\ & = (x + y - 7)(x + y + 6)\end{aligned}$$

$$\begin{aligned}(10) \quad & x^2 + 2xy - 3y^2 + 10x + 10y + 25 \\ & = (x - y + 5)(x + 3y + 5)\end{aligned}$$

$$\begin{aligned}(11) \quad & x^2 - y^2 + 12y - 36 \\ & = (x - y + 6)(x + y - 6)\end{aligned}$$

$$\begin{aligned}(12) \quad & x^2 - y^2 + 8y - 16 \\ & = (x - y + 4)(x + y - 4)\end{aligned}$$

$$\begin{aligned}(13) \quad & x^4 - 35x^2 - 36 \\ & = (x - 6)(x + 6)(x^2 + 1)\end{aligned}$$

$$\begin{aligned}(14) \quad & x^2 - 2xy - 3y^2 - 8x + 4y + 15 \\ & = (x - 3y - 5)(x + y - 3)\end{aligned}$$

$$\begin{aligned}(15) \quad & (x + y)^2 + 13(x + y) + 42 \\ & = (x + y + 6)(x + y + 7)\end{aligned}$$

$$\begin{aligned}(16) \quad & x^2 + xy - 2y^2 - 7x - 5y + 12 \\ & = (x - y - 4)(x + 2y - 3)\end{aligned}$$

$$\begin{aligned}(17) \quad & (x + y)^2 - (x + y) - 12 \\ & = (x + y - 4)(x + y + 3)\end{aligned}$$

$$\begin{aligned}(18) \quad & 24x^2 - 124x + 140 \\ & = 4(2x - 7)(3x - 5)\end{aligned}$$

$$\begin{aligned}(19) \quad & x^2 + 3xy + 2y^2 - 2x + y - 15 \\ & = (x + y + 3)(x + 2y - 5)\end{aligned}$$

$$\begin{aligned}(20) \quad & 5x^2 + 5x - 60 \\ & = 5(x - 3)(x + 4)\end{aligned}$$