

チェックテスト

3A

いろいろな式の展開

得点

/ 100

1 次の式を簡単にしなさい。 **ステップ 1**

$$\begin{aligned} \textcircled{1} \quad & (x+1)(x-3)+4x(x-2) \\ & = x^2-2x-3+4x^2-8x \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & (x-2)(x+6)-2x(x-3) \\ & = x^2+4x-12-2x^2+6x \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & (x-3)^2+(x+4)(x-9) \\ & = x^2-6x+9+x^2-5x-36 \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & (x+5)(x-5)+(x-7)^2 \\ & = x^2-25+x^2-14x+49 \end{aligned}$$

2 次の式を簡単にしなさい。 **ステップ 1**

$$\begin{aligned} \textcircled{1} \quad & 3(x+2)^2-(x+1)(x-6) \\ & = 3(x^2+4x+4)-(x^2-5x-6) \\ & = 3x^2+12x+12-x^2+5x+6 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & (x-4)(x+9)-2(x-3)^2 \\ & = x^2+5x-36-2(x^2-6x+9) \\ & = x^2+5x-36-2x^2+12x-18 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & (x+6y)(x-6y)-4(x-3y)^2 \\ & = x^2-36y^2-4(x^2-6xy+9y^2) \\ & = x^2-36y^2-4x^2+24xy-36y^2 \end{aligned}$$

3 次の式を展開しなさい。 **ステップ 2**

$$\begin{aligned} \textcircled{1} \quad & (x+y-4)(x+y+8) \\ & x+y=A \text{とおくと} \\ & \text{与式}=(A-4)(A+8) \\ & = A^2+4A-32 \\ & = (x+y)^2+4(x+y)-32 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & (a-b-5)^2 \\ & a-b=A \text{とおくと} \\ & \text{与式}=(A-5)^2 \\ & = A^2-10A+25 \\ & = (a-b)^2-10(a-b)+25 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & (x+y-3)(x-y+3) \\ & y-3=A \text{とおくと} \\ & \text{与式}=(x+A)(x-A) \\ & = x^2-A^2 \\ & = x^2-(y-3)^2 \\ & = x^2-(y^2-6y+9) \end{aligned}$$

1 10点×4

$$\textcircled{1} \quad 5x^2-10x-3$$

$$\textcircled{2} \quad -x^2+10x-12$$

$$\textcircled{3} \quad 2x^2-11x-27$$

$$\textcircled{4} \quad 2x^2-14x+24$$

2 10点×3

$$\textcircled{1} \quad 2x^2+17x+18$$

$$\textcircled{2} \quad -x^2+17x-54$$

$$\textcircled{3} \quad -3x^2+24xy-72y^2$$

3 10点×3

$$\textcircled{1} \quad x^2+2xy+y^2+4x+4y-32$$

$$\textcircled{2} \quad a^2-2ab+b^2-10a+10b+25$$

$$\textcircled{3} \quad x^2-y^2+6y-9$$