

1 次の式を展開しなさい。

① $(x+8)(x+3)$

② $(x+6)^2$

③ $(x-2)^2$

④ $(x+4)(x-4)$

⑤ $(x+7)^2$

⑥ $(x-6)(x+8)$

⑦ $(x+3)(x-3)$

⑧ $(x+8)(x-3)$

⑨ $(x+0.2)^2$

⑩ $(x+0.8)(x-0.8)$

⑪ $\left(x - \frac{1}{6}\right)^2$

⑫ $\left(x + \frac{5}{8}\right)\left(x - \frac{5}{8}\right)$

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$$\begin{aligned} \textcircled{1} \quad & (x+8)(x+3) \\ & = x^2 + (8+3)x + 8 \times 3 \\ & = x^2 + 11x + 24 \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & (x+6)^2 \\ & = x^2 + 2 \times 6 \times x + 6^2 \\ & = x^2 + 12x + 36 \end{aligned}$$

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

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

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

$$\begin{aligned} \textcircled{6} \quad & (x-6)(x+8) \\ & = x^2 + \{(-6) + 8\}x + (-6) \times 8 \\ & = x^2 + 2x - 48 \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad & (x+3)(x-3) \\ & = x^2 - 3^2 \\ & = x^2 - 9 \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad & (x+8)(x-3) \\ & = x^2 + \{8 + (-3)\}x + 8 \times (-3) \\ & = x^2 + 5x - 24 \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad & (x+0.2)^2 \\ & = x^2 + 2 \times 0.2 \times x + 0.2^2 \\ & = x^2 + 0.4x + 0.04 \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad & (x+0.8)(x-0.8) \\ & = x^2 - 0.8^2 \\ & = x^2 - 0.64 \end{aligned}$$

$$\begin{aligned} \textcircled{11} \quad & \left(x - \frac{1}{6}\right)^2 \\ & = x^2 - 2 \times \left(\frac{1}{6}\right) \times x + \left(\frac{1}{6}\right)^2 \\ & = x^2 - \frac{1}{3}x + \frac{1}{36} \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad & \left(x + \frac{5}{8}\right) \left(x - \frac{5}{8}\right) \\ & = x^2 - \left(\frac{5}{8}\right)^2 \\ & = x^2 - \frac{25}{64} \end{aligned}$$