

スタート

解答中学3年生

ゴール

根号を含む式

$$\sqrt{15}$$

$$-\sqrt{2}$$

$$\begin{aligned} &\sqrt{12} \\ &= 2\sqrt{3} \end{aligned}$$

$$6\sqrt{3} + \sqrt{7}$$

$$\begin{aligned} &\sqrt{27} - \sqrt{3} \\ &= 3\sqrt{3} - \sqrt{3} \\ &= 2\sqrt{3} \end{aligned}$$

式の展開

$$\begin{aligned} &\text{乗法の公式より} \\ &(a+b)(a-b) = a^2 - b^2 \\ &(x+6)(x-6) \\ &= x^2 - 36 \end{aligned}$$

$$\begin{aligned} &\text{乗法の公式より} \\ &(a+b)^2 = a^2 + 2ab + b^2 \\ &(x+3)^2 \\ &= x^2 + 6x + 9 \end{aligned}$$

$$\begin{aligned} &\text{乗法の公式より} \\ &(x+a)(x+b) = x^2 + (a+b)x + ab \\ &(x+3)(x-4) \\ &= x^2 - x - 12 \end{aligned}$$

$$3a - 2$$

$$\begin{aligned} &\text{分配法則を使って} \\ &\text{かっこをはずすと} \\ &2a^2 + 6ab \end{aligned}$$

因数分解

$$2(x+y)$$

$$(x+2)(x+5)$$

$$(x+7)(x-5)$$

$$(x+1)^2$$

$$(x+9)(x-9)$$

円周角の定理より
 $\angle x = 70^\circ$

二次方程式

$$\begin{aligned} &\text{解の公式より} \\ &x = \frac{-3 \pm \sqrt{9-4}}{2} \\ &= \frac{-3 \pm \sqrt{5}}{2} \end{aligned}$$

$$\begin{aligned} &x^2 - 6x + 5 = 0 \\ &(x-5)(x-1) = 0 \\ &x = 5, 1 \end{aligned}$$

$$\begin{aligned} &x^2 - 6x + 9 = 0 \\ &(x-3)^2 = 0 \\ &x = 3 \end{aligned}$$

$$\begin{aligned} &x^2 - 64 = 0 \\ &(x+8)(x-8) = 0 \\ &x = -8, 8 \end{aligned}$$