

二次方程式 いろいろな計算2

NO.1

名前

/6 点

◆次の方程式を解きなさい

$$(1) (x + 3)^2 - 8 = 0$$

$$(2) (x + 1)^2 - 7 = 0$$

$$(3) (x + 5)(x - 1) = 7$$

$$(4) (x + 5)(x - 2) = x - 2$$

$$(5) 7(x + 10)^2 = 56$$

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

解答

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

$$\begin{aligned}
 (2) \quad (x + 1)^2 &= 7 \\
 x + 1 &= \pm \sqrt{7} \\
 x &= -1 \pm \sqrt{7}
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad x^2 + 4x - 5 &= 7 \\
 x^2 + 4x - 12 &= 0 \\
 (x - 2)(x + 6) &= 0 \\
 x &= 2, -6
 \end{aligned}$$

$$\begin{aligned}
 (3) \quad x^2 + 3x - 10 &= 0 \\
 (x - 1)(x - 5) &= 0 \\
 x &= 1, 5
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad x^2 + 3x - 10 &= x - 2 \\
 x^2 + 2x - 8 &= 0 \\
 (x - 2)(x + 4) &= 0 \\
 x &= 2, -4
 \end{aligned}$$

$$\begin{aligned}
 (5) \quad (x + 10)^2 &= 8 \\
 x + 10 &= \pm 2\sqrt{2} \\
 x &= -10 \pm 2\sqrt{2}
 \end{aligned}$$

$$\begin{aligned}
 (6) \quad 3x^2 + 5x + 1 &= 0 \\
 x &= \frac{-5 \pm \sqrt{25 - 12}}{6} \\
 &= \frac{-5 \pm \sqrt{13}}{6}
 \end{aligned}$$