

二次方程式 いろいろな計算2

NO.3

名前

/6 点

◆次の方程式を解きなさい

$$(1) \quad (x - 4)^2 - 6 = 0$$

$$(2) \quad (x + 6)^2 - 11 = 0$$

$$(3) \quad (x + 5)(x - 3) = 20$$

$$(4) \quad (x - 3)^2 = 2x - 6$$

$$(5) \quad (x + 1)^2 = 4x + 3$$

$$(6) \quad (x + 3)^2 = 3x + 19$$

答

$$(1) \quad (x - 4)^2 - 6 = 0$$

$$x - 4 = \pm \sqrt{6}$$

$$x = 4 \pm \sqrt{6}$$

$$(2) \quad (x + 6)^2 = 11$$

$$x + 6 = \pm \sqrt{11}$$

$$x = -6 \pm \sqrt{11}$$

$$(3) \quad x^2 + 2x - 15 = 20$$

$$x^2 + 2x - 35 = 0$$

$$(x + 7)(x - 5) = 0$$

$$x = -7, 5$$

$$(4) \quad x^2 - 6x + 9 = 2x - 6$$

$$x^2 - 8x + 15 = 0$$

$$(x - 3)(x - 5) = 0$$

$$x = 3, 5$$

$$(5) \quad x^2 + 2x + 1 = 4x + 3$$

$$x^2 - 2x - 2 = 0$$

$$x = \frac{2 \pm \sqrt{4 + 8}}{2}$$

$$= \frac{2 \pm \sqrt{12}}{2} = \frac{2 \pm 2\sqrt{3}}{2}$$

$$= 1 \pm 2\sqrt{3}$$

$$(6) \quad x^2 - 6x + 9 = 3x + 19$$

$$x^2 - 3x - 10 = 0$$

$$(x - 2)(x + 5) = 0$$

$$x = -5, 2$$