

# 2次方程式

年 組 名前

/21

■ 次の方程式を解きなさい。

①  $x^2 - 4x - 21 = 0$

⑧  $x^2 - 81 = 0$

⑮  $x^2 - 9x + 14 = 0$

②  $x^2 - 14x + 40 = 0$

⑨  $x^2 - 3x - 40 = 0$

⑯  $5x^2 - x = 0$

③  $4x^2 - 7x + 1 = 0$

⑩  $x^2 - 5x - 5 = 0$

⑰  $x^2 + 10x + 24 = 0$

④  $x^2 + 11x + 10 = 0$

⑪  $x^2 + 4x + 3 = 0$

⑱  $3x^2 + 2x - 8 = 0$

⑤  $x^2 - 14x + 49 = 0$

⑫  $9x^2 - 12x + 4 = 0$

⑲  $2x^2 + 9x + 4 = 0$

⑥  $8x^2 - 2x - 3 = 0$

⑬  $16x^2 - 1 = 0$

⑳  $x^2 - 4x - 12 = 0$

⑦  $5x^2 + 4x - 1 = 0$

⑭  $x^2 - 7x + 1 = 0$

㉑  $x^2 + 2x - 35 = 0$

■ 次の方程式を解きなさい。

①  $x^2 - 4x - 21 = 0$

$$(x+3)(x-7) = 0$$

$$x = -3, 7$$

②  $x^2 - 14x + 40 = 0$

$$(x-4)(x-10) = 0$$

$$x = 4, 10$$

③  $4x^2 - 7x + 1 = 0$

$$x = \frac{7 \pm \sqrt{33}}{8}$$

④  $x^2 + 11x + 10 = 0$

$$(x+1)(x+10) = 0$$

$$x = -1, -10$$

⑤  $x^2 - 14x + 49 = 0$

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

$$x = 7$$

⑥  $8x^2 - 2x - 3 = 0$

$$x = \frac{1 \pm 5}{8}$$
$$= \frac{3}{4}, -\frac{1}{2}$$

⑦  $5x^2 + 4x - 1 = 0$

$$x = \frac{-2 \pm 3}{5}$$
$$= \frac{1}{5}, -1$$

⑧  $x^2 - 81 = 0$

$$(x+9)(x-9) = 0$$

$$x = \pm 9$$

⑨  $x^2 - 3x - 40 = 0$

$$(x+5)(x-8) = 0$$

$$x = -5, 8$$

⑩  $x^2 - 5x - 5 = 0$

$$x = \frac{5 \pm 3\sqrt{5}}{2}$$

⑪  $x^2 + 4x + 3 = 0$

$$(x+1)(x+3) = 0$$

$$x = -1, -3$$

⑫  $9x^2 - 12x + 4 = 0$

$$(3x-2)^2 = 0$$

$$x = \frac{2}{3}$$

⑬  $16x^2 - 1 = 0$

$$(4x+1)(4x-1) = 0$$

$$x = \pm \frac{1}{4}$$

⑭  $x^2 - 7x + 1 = 0$

$$x = \frac{7 \pm 3\sqrt{5}}{2}$$

⑮  $x^2 - 9x + 14 = 0$

$$(x-2)(x-7) = 0$$

$$x = 2, 7$$

⑯  $5x^2 - x = 0$

$$x(5x-1) = 0$$

$$x = 0, \frac{1}{5}$$

⑰  $x^2 + 10x + 24 = 0$

$$(x+4)(x+6) = 0$$

$$x = -4, -6$$

⑱  $3x^2 + 2x - 8 = 0$

$$x = \frac{-1 \pm 5}{3}$$
$$= \frac{4}{3}, -2$$

⑲  $2x^2 + 9x + 4 = 0$

$$x = \frac{-9 \pm 7}{4}$$
$$= \frac{1}{2}, -4$$

⑳  $x^2 - 4x - 12 = 0$

$$(x+2)(x-6) = 0$$

$$x = -2, 6$$

㉑  $x^2 + 2x - 35 = 0$

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

$$x = 5, -7$$