

# 2次方程式

年 組 名前

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■ 次の方程式を解きなさい。

①  $x^2 + 3x - 2 = 0$

⑧  $x^2 - 64 = 0$

⑮  $4x^2 + 4x - 3 = 0$

②  $x^2 + 6x = 0$

⑨  $4x^2 - x - 5 = 0$

⑯  $x^2 - 12x + 20 = 0$

③  $x^2 + x - 20 = 0$

⑩  $4x^2 + x = 0$

⑰  $x^2 + 14x - 15 = 0$

④  $8x^2 + 7x - 1 = 0$

⑪  $4x^2 - 1 = 0$

⑱  $5x^2 - 8x + 3 = 0$

⑤  $x^2 + 9x - 10 = 0$

⑫  $2x^2 - 7x + 4 = 0$

⑲  $16x^2 + 24x + 9 = 0$

⑥  $x^2 - 5x + 4 = 0$

⑬  $36x^2 - 12x + 1 = 0$

⑳  $x^2 + 8x + 16 = 0$

⑦  $x^2 + 3x - 10 = 0$

⑭  $x^2 + 14x + 24 = 0$

㉑  $6x^2 - x - 1 = 0$

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■ 次の方程式を解きなさい。

①  $x^2 + 3x - 2 = 0$

$$x = \frac{-3 \pm \sqrt{17}}{2}$$

②  $x^2 + 6x = 0$

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

$$x = 0, -6$$

③  $x^2 + x - 20 = 0$

$$(x-4)(x+5) = 0$$

$$x = 4, -5$$

④  $8x^2 + 7x - 1 = 0$

$$x = \frac{-7 \pm 9}{16}$$
$$= \frac{1}{8}, -1$$

⑤  $x^2 + 9x - 10 = 0$

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

$$x = 1, -10$$

⑥  $x^2 - 5x + 4 = 0$

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

$$x = 1, 4$$

⑦  $x^2 + 3x - 10 = 0$

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

$$x = 2, -5$$

⑧  $x^2 - 64 = 0$

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

$$x = \pm 8$$

⑨  $4x^2 - x - 5 = 0$

$$x = \frac{1 \pm 9}{8}$$
$$= \frac{5}{4}, -1$$

⑩  $4x^2 + x = 0$

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

$$x = 0, -\frac{1}{4}$$

⑪  $4x^2 - 1 = 0$

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

$$x = \pm \frac{1}{2}$$

⑫  $2x^2 - 7x + 4 = 0$

$$x = \frac{7 \pm \sqrt{17}}{4}$$

⑬  $36x^2 - 12x + 1 = 0$

$$(6x-1)^2 = 0$$

$$x = \frac{1}{6}$$

⑭  $x^2 + 14x + 24 = 0$

$$(x+2)(x+12) = 0$$

$$x = -2, -12$$

⑮  $4x^2 + 4x - 3 = 0$

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

⑯  $x^2 - 12x + 20 = 0$

$$(x-2)(x-10) = 0$$

$$x = 2, 10$$

⑰  $x^2 + 14x - 15 = 0$

$$(x-1)(x+15) = 0$$

$$x = 1, -15$$

⑱  $5x^2 - 8x + 3 = 0$

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

⑲  $16x^2 + 24x + 9 = 0$

$$(4x+3)^2 = 0$$

$$x = -\frac{3}{4}$$

⑳  $x^2 + 8x + 16 = 0$

$$(x+4)^2 = 0$$

$$x = -4$$

㉑  $6x^2 - x - 1 = 0$

$$x = \frac{1 \pm 5}{12}$$
$$= \frac{1}{2}, -\frac{1}{3}$$