

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 $x^2 - x - 30 = 0$

⑧ $x^2 - 15x + 14 = 0$

⑮ $2x^2 - 3x = 0$

② $8x^2 + 6x + 1 = 0$

⑨ $x^2 - 3x - 5 = 0$

⑯ $x^2 + 13x + 42 = 0$

③ $x^2 + 8x + 16 = 0$

⑩ $4x^2 + x = 0$

⑰ $3x^2 - 3x - 1 = 0$

④ $x^2 - 49 = 0$

⑪ $2x^2 + 7x + 5 = 0$

⑱ $x^2 + 6x - 40 = 0$

⑤ $x^2 - 18x + 81 = 0$

⑫ $36x^2 + 12x + 1 = 0$

⑲ $2x^2 + x - 1 = 0$

⑥ $x^2 + 5x + 2 = 0$

⑬ $5x^2 + 9x + 4 = 0$

⑳ $x^2 + 6x + 9 = 0$

⑦ $x^2 - 7x - 18 = 0$

⑭ $x^2 + 7x - 8 = 0$

㉑ $x^2 - 6x = 0$

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■ 次の方程式を解きなさい。

① $x^2 - x - 30 = 0$

$$(x+5)(x-6) = 0$$

$$x = -5, 6$$

② $8x^2 + 6x + 1 = 0$

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

③ $x^2 + 8x + 16 = 0$

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

$$x = -4$$

④ $x^2 - 49 = 0$

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

$$x = \pm 7$$

⑤ $x^2 - 18x + 81 = 0$

$$(x-9)^2 = 0$$

$$x = 9$$

⑥ $x^2 + 5x + 2 = 0$

$$x = \frac{-5 \pm \sqrt{17}}{2}$$

⑦ $x^2 - 7x - 18 = 0$

$$(x+2)(x-9) = 0$$

$$x = -2, 9$$

⑧ $x^2 - 15x + 14 = 0$

$$(x-1)(x-14) = 0$$

$$x = 1, 14$$

⑨ $x^2 - 3x - 5 = 0$

$$x = \frac{3 \pm \sqrt{29}}{2}$$

⑩ $4x^2 + x = 0$

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

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

⑪ $2x^2 + 7x + 5 = 0$

$$x = \frac{-7 \pm 3}{4}$$

$$= 1, -\frac{5}{2}$$

⑫ $36x^2 + 12x + 1 = 0$

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

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

⑬ $5x^2 + 9x + 4 = 0$

$$x = \frac{-9 \pm 1}{10}$$

$$= \frac{4}{5}, -1$$

⑭ $x^2 + 7x - 8 = 0$

$$(x-1)(x+8) = 0$$

$$x = 1, -8$$

⑮ $2x^2 - 3x = 0$

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

$$x = 0, \frac{3}{2}$$

⑯ $x^2 + 13x + 42 = 0$

$$(x+6)(x+7) = 0$$

$$x = -6, -7$$

⑰ $3x^2 - 3x - 1 = 0$

$$x = \frac{3 \pm \sqrt{21}}{6}$$

⑱ $x^2 + 6x - 40 = 0$

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

$$x = 4, -10$$

⑲ $2x^2 + x - 1 = 0$

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

$$= \frac{1}{2}, -1$$

⑳ $x^2 + 6x + 9 = 0$

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

$$x = -3$$

㉑ $x^2 - 6x = 0$

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

$$x = 0, 6$$