

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 $x^2 - 4x - 21 = 0$

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

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

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

$$x = 5, -7$$