

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

② $4x^2 - 3x = 0$

③ $5x^2 - x = 0$

④ $x^2 + 2x - 48 = 0$

⑤ $x^2 - 6x - 27 = 0$

⑥ $2x^2 + 4x + 1 = 0$

⑦ $x^2 + 14x + 49 = 0$

⑧ $x^2 - 16x + 15 = 0$

⑨ $7x^2 + 6x - 1 = 0$

⑩ $x^2 - 2x - 8 = 0$

⑪ $4x^2 + 9x + 5 = 0$

⑫ $x^2 - 17x + 30 = 0$

⑬ $x^2 + 13x + 12 = 0$

⑭ $4x^2 + x - 3 = 0$

⑮ $x^2 + x = 0$

⑯ $x^2 + 6x + 3 = 0$

⑰ $x^2 + x - 72 = 0$

⑱ $x^2 + 10x + 9 = 0$

⑲ $x^2 - 3x - 40 = 0$

⑳ $x^2 + 4x - 7 = 0$

㉑ $9x^2 - 1 = 0$

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① $3x^2 + 2x - 2 = 0$

$$x = \frac{-1 \pm \sqrt{7}}{3}$$

② $4x^2 - 3x = 0$

$$x(4x - 3) = 0$$

$$x = 0, \frac{3}{4}$$

③ $5x^2 - x = 0$

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

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

④ $x^2 + 2x - 48 = 0$

$$(x - 6)(x + 8) = 0$$

$$x = 6, -8$$

⑤ $x^2 - 6x - 27 = 0$

$$(x + 3)(x - 9) = 0$$

$$x = -3, 9$$

⑥ $2x^2 + 4x + 1 = 0$

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

⑦ $x^2 + 14x + 49 = 0$

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

$$x = -7$$

⑧ $x^2 - 16x + 15 = 0$

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

$$x = 1, 15$$

⑨ $7x^2 + 6x - 1 = 0$

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

$$= \frac{1}{7}, -1$$

⑩ $x^2 - 2x - 8 = 0$

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

$$x = -2, 4$$

⑪ $4x^2 + 9x + 5 = 0$

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

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

⑫ $x^2 - 17x + 30 = 0$

$$(x - 2)(x - 15) = 0$$

$$x = 2, 15$$

⑬ $x^2 + 13x + 12 = 0$

$$(x + 1)(x + 12) = 0$$

$$x = -1, -12$$

⑭ $4x^2 + x - 3 = 0$

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

$$= \frac{3}{4}, -1$$

⑮ $x^2 + x = 0$

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

$$x = 0, -1$$

⑯ $x^2 + 6x + 3 = 0$

$$x = -3 \pm \sqrt{6}$$

⑰ $x^2 + x - 72 = 0$

$$(x - 8)(x + 9) = 0$$

$$x = 8, -9$$

⑱ $x^2 + 10x + 9 = 0$

$$(x + 1)(x + 9) = 0$$

$$x = -1, -9$$

⑲ $x^2 - 3x - 40 = 0$

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

$$x = -5, 8$$

⑳ $x^2 + 4x - 7 = 0$

$$x = -2 \pm \sqrt{11}$$

㉑ $9x^2 - 1 = 0$

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

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