

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 $8x^2 + 2x - 1 = 0$

⑧ $36x^2 - 1 = 0$

⑮ $x^2 - x - 56 = 0$

② $x^2 - x - 6 = 0$

⑨ $5x^2 + 7x + 1 = 0$

⑯ $x^2 + 10x + 21 = 0$

③ $x^2 + 12x + 20 = 0$

⑩ $2x^2 + 5x + 1 = 0$

⑰ $3x^2 + 7x + 2 = 0$

④ $2x^2 - 5x - 1 = 0$

⑪ $25x^2 - 10x + 1 = 0$

⑱ $x^2 - 4x = 0$

⑤ $4x^2 - x = 0$

⑫ $x^2 - 49 = 0$

⑲ $x^2 + 13x + 40 = 0$

⑥ $4x^2 - 12x + 9 = 0$

⑬ $x^2 - 4x + 3 = 0$

⑳ $5x^2 - 8x + 3 = 0$

⑦ $x^2 - 3x - 10 = 0$

⑭ $8x^2 - x - 1 = 0$

㉑ $x^2 - 12x + 27 = 0$

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■ 次の方程式を解きなさい。

① $8x^2 + 2x - 1 = 0$

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

② $x^2 - x - 6 = 0$

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

③ $x^2 + 12x + 20 = 0$

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

④ $2x^2 - 5x - 1 = 0$

$$x = \frac{5 \pm \sqrt{33}}{4}$$

⑤ $4x^2 - x = 0$

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

⑥ $4x^2 - 12x + 9 = 0$

$$(2x-3)^2 = 0$$
$$x = \frac{3}{2}$$

⑦ $x^2 - 3x - 10 = 0$

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

⑧ $36x^2 - 1 = 0$

$$(6x+1)(6x-1) = 0$$
$$x = \pm \frac{1}{6}$$

⑨ $5x^2 + 7x + 1 = 0$

$$x = \frac{-7 \pm \sqrt{29}}{10}$$

⑩ $2x^2 + 5x + 1 = 0$

$$x = \frac{-5 \pm \sqrt{17}}{4}$$

⑪ $25x^2 - 10x + 1 = 0$

$$(5x-1)^2 = 0$$
$$x = \frac{1}{5}$$

⑫ $x^2 - 49 = 0$

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

⑬ $x^2 - 4x + 3 = 0$

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

⑭ $8x^2 - x - 1 = 0$

$$x = \frac{1 \pm \sqrt{33}}{16}$$

⑮ $x^2 - x - 56 = 0$

$$(x+7)(x-8) = 0$$
$$x = -7, 8$$

⑯ $x^2 + 10x + 21 = 0$

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

⑰ $3x^2 + 7x + 2 = 0$

$$x = \frac{-7 \pm 5}{6}$$
$$= \frac{1}{3}, -2$$

⑱ $x^2 - 4x = 0$

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

⑲ $x^2 + 13x + 40 = 0$

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

⑳ $5x^2 - 8x + 3 = 0$

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

㉑ $x^2 - 12x + 27 = 0$

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