

1 次の2次方程式を解きなさい。

① $x^2 - 2 = 0$

② $3x^2 - 9 = 0$

③ $(x - 6)^2 = 5$

④ $(x - 3)^2 - 10 = 0$

⑤ $x^2 + 8x = 3$

⑥ $x^2 - 4x - 6 = 0$

1 次の2次方程式を解きなさい。

① $x^2 - 2 = 0$

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

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② $3x^2 - 9 = 0$

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$$x^2 - 3 = 0$$

$$x^2 = 3$$

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

③ $(x - 6)^2 = 5$

$$x = 6 \pm\sqrt{5}$$

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$$x = 6 \pm\sqrt{5}$$

④ $(x - 3)^2 - 10 = 0$

$$x = 3 \pm\sqrt{10}$$

$$(x - 3)^2 - 10 = 0$$

$$(x - 3)^2 = 10$$

$$x - 3 = \pm\sqrt{10}$$

$$x = 3 \pm\sqrt{10}$$

⑤ $x^2 + 8x = 3$

$$x = -4 \pm\sqrt{19}$$

$$x^2 + 8x = 3$$

$$x^2 + 8x + 4^2 = 3 + 4^2$$

$$(x + 4)^2 = 19$$

$$x + 4 = \pm\sqrt{19}$$

$$x = -4 \pm\sqrt{19}$$

⑥ $x^2 - 4x - 6 = 0$

$$x = 2 \pm\sqrt{10}$$

$$x^2 - 4x - 6 = 0$$

$$x^2 - 4x = 6$$

$$x^2 - 4x + 2^2 = 6 + 2^2$$

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

$$x - 2 = \pm\sqrt{10}$$

$$x = 2 \pm\sqrt{10}$$