

1 次の2次方程式を解きなさい。

①  $x^2 - 6 = 0$

②  $4x^2 - 8 = 0$

③  $(x - 6)^2 = 3$

④  $(x - 7)^2 - 5 = 0$

⑤  $x^2 + 4x = 1$

⑥  $x^2 - 10x - 3 = 0$

1 次の2次方程式を解きなさい。

①  $x^2 - 6 = 0$

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

$$x^2 - 6 = 0$$

$$x^2 = 6$$

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

②  $4x^2 - 8 = 0$

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

$$4x^2 - 8 = 0$$

$$x^2 - 2 = 0$$

$$x^2 = 2$$

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

③  $(x - 6)^2 = 3$

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

$$(x - 6)^2 = 3$$

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

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

④  $(x - 7)^2 - 5 = 0$

$$x = 7 \pm\sqrt{5}$$

$$(x - 7)^2 - 5 = 0$$

$$(x - 7)^2 = 5$$

$$x - 7 = \pm\sqrt{5}$$

$$x = 7 \pm\sqrt{5}$$

⑤  $x^2 + 4x = 1$

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

$$x^2 + 4x = 1$$

$$x^2 + 4x + 2^2 = 1 + 2^2$$

$$(x + 2)^2 = 5$$

$$x + 2 = \pm\sqrt{5}$$

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

⑥  $x^2 - 10x - 3 = 0$

$$x = 5 \pm 2\sqrt{7}$$

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

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

$$x^2 - 10x + 5^2 = 3 + 5^2$$

$$(x - 5)^2 = 28$$

$$x - 5 = \pm\sqrt{28}$$

$$x = 5 \pm 2\sqrt{7}$$