

1 次の2次方程式を解きなさい。

①  $x^2 - 7 = 0$

②  $2x^2 - 6 = 0$

③  $(x - 5)^2 = 11$

④  $(x - 2)^2 - 6 = 0$

⑤  $x^2 + 6x = 5$

⑥  $x^2 - 8x - 7 = 0$

1 次の2次方程式を解きなさい。

①  $x^2 - 7 = 0$

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

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②  $2x^2 - 6 = 0$

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

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

$$x^2 - 3 = 0$$

$$x^2 = 3$$

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

③  $(x - 5)^2 = 11$

$$x = 5 \pm\sqrt{11}$$

$$(x - 5)^2 = 11$$

$$x - 5 = \pm\sqrt{11}$$

$$x = 5 \pm\sqrt{11}$$

④  $(x - 2)^2 - 6 = 0$

$$x = 2 \pm\sqrt{6}$$

$$(x - 2)^2 - 6 = 0$$

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

$$x - 2 = \pm\sqrt{6}$$

$$x = 2 \pm\sqrt{6}$$

⑤  $x^2 + 6x = 5$

$$x = -3 \pm\sqrt{14}$$

$$x^2 + 6x = 5$$

$$x^2 + 6x + 3^2 = 5 + 3^2$$

$$(x + 3)^2 = 14$$

$$x + 3 = \pm\sqrt{14}$$

$$x = -3 \pm\sqrt{14}$$

⑥  $x^2 - 8x - 7 = 0$

$$x = 2 \pm\sqrt{23}$$

$$x^2 - 8x - 7 = 0$$

$$x^2 - 8x = 7$$

$$x^2 - 8x + 4^2 = 7 + 4^2$$

$$(x - 4)^2 = 23$$

$$x - 4 = \pm\sqrt{23}$$

$$x = 2 \pm\sqrt{23}$$