

1 次の2次方程式を解きなさい。

①  $x^2 - 5 = 0$

②  $5x^2 - 10 = 0$

③  $(x - 3)^2 = 12$

④  $(x - 4)^2 - 2 = 0$

⑤  $x^2 + 10x = 2$

⑥  $x^2 - 8x - 3 = 0$

1 次の2次方程式を解きなさい。

①  $x^2 - 5 = 0$

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

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②  $5x^2 - 10 = 0$

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

$$5x^2 - 10 = 0$$

$$x^2 - 2 = 0$$

$$x^2 = 2$$

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

③  $(x - 3)^2 = 12$

$$x = 3 \pm 2\sqrt{3}$$

$$(x - 3)^2 = 12$$

$$x - 3 = \pm\sqrt{12}$$

$$x = 3 \pm 2\sqrt{3}$$

④  $(x - 4)^2 - 2 = 0$

$$x = 4 \pm \sqrt{2}$$

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

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

$$x - 4 = \pm\sqrt{2}$$

$$x = 4 \pm \sqrt{2}$$

⑤  $x^2 + 10x = 2$

$$x = -5 \pm 3\sqrt{3}$$

$$x^2 + 10x = 2$$

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

$$(x + 5)^2 = 27$$

$$x + 5 = \pm\sqrt{27}$$

$$x = -5 \pm 3\sqrt{3}$$

⑥  $x^2 - 8x - 3 = 0$

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

$$x^2 - 8x - 3 = 0$$

$$x^2 - 8x = 3$$

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

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

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

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