

2次方程式

年 組 名前

/18

■ 次の方程式を解きなさい。

① $(x-2)^2=28$

$x=$

② $(x+8)^2-3=0$

$x=$

③ $(x-8)^2=17$

$x=$

④ $(x+7)^2-4=0$

$x=$

⑤ $(x+2)^2=58$

$x=$

⑥ $(x-9)^2-18=0$

$x=$

⑦ $(x+3)^2-48=0$

$x=$

⑧ $(x-6)^2=16$

$x=$

⑨ $(x-5)^2-36=0$

$x=$

⑩ $(x-7)^2=63$

$x=$

⑪ $(x-4)^2-1=0$

$x=$

⑫ $(x-1)^2=25$

$x=$

⑬ $(x+6)^2-20=0$

$x=$

⑭ $(x+1)^2=34$

$x=$

⑮ $(x+9)^2-81=0$

$x=$

⑯ $(x+5)^2=38$

$x=$

⑰ $(x-3)^2=49$

$x=$

⑱ $(x+4)^2-9=0$

$x=$

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■ 次の方程式を解きなさい。

$$\begin{aligned} \textcircled{1} (x-2)^2 &= 28 \\ x-2 &= \pm 2\sqrt{7} \end{aligned}$$

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

$$\begin{aligned} \textcircled{2} (x+8)^2 - 3 &= 0 \\ (x+8)^2 &= 3 \\ x+8 &= \pm\sqrt{3} \end{aligned}$$

$$x = -8 \pm \sqrt{3}$$

$$\begin{aligned} \textcircled{3} (x-8)^2 &= 17 \\ x-8 &= \pm\sqrt{17} \end{aligned}$$

$$x = 8 \pm \sqrt{17}$$

$$\begin{aligned} \textcircled{4} (x+7)^2 - 4 &= 0 \\ (x+7)^2 &= 4 \\ x+7 &= \pm 2 \\ x &= -7 \pm 2 \end{aligned}$$

$$x = -9, -5$$

$$\begin{aligned} \textcircled{5} (x+2)^2 &= 58 \\ x+2 &= \pm\sqrt{58} \end{aligned}$$

$$x = -2 \pm \sqrt{58}$$

$$\begin{aligned} \textcircled{6} (x-9)^2 - 18 &= 0 \\ (x-9)^2 &= 18 \\ x-9 &= \pm 3\sqrt{2} \end{aligned}$$

$$x = 9 \pm 3\sqrt{2}$$

$$\begin{aligned} \textcircled{7} (x+3)^2 - 48 &= 0 \\ (x+3)^2 &= 48 \\ x+3 &= \pm 4\sqrt{3} \end{aligned}$$

$$x = -3 \pm 4\sqrt{3}$$

$$\begin{aligned} \textcircled{8} (x-6)^2 &= 16 \\ x-6 &= \pm 4 \\ x &= 6 \pm 4 \end{aligned}$$

$$x = 2, 10$$

$$\begin{aligned} \textcircled{9} (x-5)^2 - 36 &= 0 \\ (x-5)^2 &= 36 \\ x-5 &= \pm 6 \\ x &= 5 \pm 6 \end{aligned}$$

$$x = -1, 11$$

$$\begin{aligned} \textcircled{10} (x-7)^2 &= 63 \\ x-7 &= \pm 3\sqrt{7} \end{aligned}$$

$$x = 7 \pm 3\sqrt{7}$$

$$\begin{aligned} \textcircled{11} (x-4)^2 - 1 &= 0 \\ (x-4)^2 &= 1 \\ x-4 &= \pm 1 \\ x &= 4 \pm 1 \end{aligned}$$

$$x = 3, 5$$

$$\begin{aligned} \textcircled{12} (x-1)^2 &= 25 \\ x-1 &= \pm 5 \\ x &= 1 \pm 5 \end{aligned}$$

$$x = -4, 6$$

$$\begin{aligned} \textcircled{13} (x+6)^2 - 20 &= 0 \\ (x+6)^2 &= 20 \\ x+6 &= \pm 2\sqrt{5} \end{aligned}$$

$$x = -6 \pm 2\sqrt{5}$$

$$\begin{aligned} \textcircled{14} (x+1)^2 &= 34 \\ x+1 &= \pm\sqrt{34} \end{aligned}$$

$$x = -1 \pm \sqrt{34}$$

$$\begin{aligned} \textcircled{15} (x+9)^2 - 81 &= 0 \\ (x+9)^2 &= 81 \\ x+9 &= \pm 9 \\ x &= -9 \pm 9 \end{aligned}$$

$$x = -18, 0$$

$$\begin{aligned} \textcircled{16} (x+5)^2 &= 38 \\ x+5 &= \pm\sqrt{38} \end{aligned}$$

$$x = -5 \pm \sqrt{38}$$

$$\begin{aligned} \textcircled{17} (x-3)^2 &= 49 \\ x-3 &= \pm 7 \\ x &= 3 \pm 7 \end{aligned}$$

$$x = -4, 10$$

$$\begin{aligned} \textcircled{18} (x+4)^2 - 9 &= 0 \\ (x+4)^2 &= 9 \\ x+4 &= \pm 3 \\ x &= -4 \pm 3 \end{aligned}$$

$$x = -7, -1$$