

2次方程式

年 組 名前

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■ 次の方程式を解きなさい。

① $(x+5)^2=60$

$x=$

② $(x+7)^2-24=0$

$x=$

③ $(x-8)^2-12=0$

$x=$

④ $(x+9)^2=8$

$x=$

⑤ $(x-3)^2-36=0$

$x=$

⑥ $(x+2)^2=44$

$x=$

⑦ $(x+3)^2-48=0$

$x=$

⑧ $(x-7)^2=10$

$x=$

⑨ $(x-1)^2=49$

$x=$

⑩ $(x-6)^2-1=0$

$x=$

⑪ $(x-5)^2=30$

$x=$

⑫ $(x+4)^2-52=0$

$x=$

⑬ $(x-9)^2=16$

$x=$

⑭ $(x+6)^2-81=0$

$x=$

⑮ $(x-4)^2=28$

$x=$

⑯ $(x-2)^2-4=0$

$x=$

⑰ $(x+1)^2-38=0$

$x=$

⑱ $(x+8)^2=53$

$x=$

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■ 次の方程式を解きなさい。

$$\begin{aligned} \textcircled{1} (x+5)^2 &= 60 \\ x+5 &= \pm 2\sqrt{15} \end{aligned}$$

$$x = -5 \pm 2\sqrt{15}$$

$$\begin{aligned} \textcircled{2} (x+7)^2 - 24 &= 0 \\ (x+7)^2 &= 24 \\ x+7 &= \pm 2\sqrt{6} \end{aligned}$$

$$x = -7 \pm 2\sqrt{6}$$

$$\begin{aligned} \textcircled{3} (x-8)^2 - 12 &= 0 \\ (x-8)^2 &= 12 \\ x-8 &= \pm 2\sqrt{3} \end{aligned}$$

$$x = 8 \pm 2\sqrt{3}$$

$$\begin{aligned} \textcircled{4} (x+9)^2 &= 8 \\ x+9 &= \pm 2\sqrt{2} \end{aligned}$$

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

$$\begin{aligned} \textcircled{5} (x-3)^2 - 36 &= 0 \\ (x-3)^2 &= 36 \\ x-3 &= \pm 6 \\ x &= 3 \pm 6 \end{aligned}$$

$$x = -3, 9$$

$$\begin{aligned} \textcircled{6} (x+2)^2 &= 44 \\ x+2 &= \pm 2\sqrt{11} \end{aligned}$$

$$x = -2 \pm 2\sqrt{11}$$

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

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

$$\begin{aligned} \textcircled{8} (x-7)^2 &= 10 \\ x-7 &= \pm \sqrt{10} \end{aligned}$$

$$x = 7 \pm \sqrt{10}$$

$$\begin{aligned} \textcircled{9} (x-1)^2 &= 49 \\ x-1 &= \pm 7 \\ x &= 1 \pm 7 \end{aligned}$$

$$x = -6, 8$$

$$\begin{aligned} \textcircled{10} (x-6)^2 - 1 &= 0 \\ (x-6)^2 &= 1 \\ x-6 &= \pm 1 \\ x &= 6 \pm 1 \end{aligned}$$

$$x = 5, 7$$

$$\begin{aligned} \textcircled{11} (x-5)^2 &= 30 \\ x-5 &= \pm \sqrt{30} \end{aligned}$$

$$x = 5 \pm \sqrt{30}$$

$$\begin{aligned} \textcircled{12} (x+4)^2 - 52 &= 0 \\ (x+4)^2 &= 52 \\ x+4 &= \pm 2\sqrt{13} \end{aligned}$$

$$x = -4 \pm 2\sqrt{13}$$

$$\begin{aligned} \textcircled{13} (x-9)^2 &= 16 \\ x-9 &= \pm 4 \\ x &= 9 \pm 4 \end{aligned}$$

$$x = 5, 13$$

$$\begin{aligned} \textcircled{14} (x+6)^2 - 81 &= 0 \\ (x+6)^2 &= 81 \\ x+6 &= \pm 9 \\ x &= -6 \pm 9 \end{aligned}$$

$$x = -15, 3$$

$$\begin{aligned} \textcircled{15} (x-4)^2 &= 28 \\ x-4 &= \pm 2\sqrt{7} \end{aligned}$$

$$x = 4 \pm 2\sqrt{7}$$

$$\begin{aligned} \textcircled{16} (x-2)^2 - 4 &= 0 \\ (x-2)^2 &= 4 \\ x-2 &= \pm 2 \\ x &= 2 \pm 2 \end{aligned}$$

$$x = 0, 4$$

$$\begin{aligned} \textcircled{17} (x+1)^2 - 38 &= 0 \\ (x+1)^2 &= 38 \\ x+1 &= \pm \sqrt{38} \end{aligned}$$

$$x = -1 \pm \sqrt{38}$$

$$\begin{aligned} \textcircled{18} (x+8)^2 &= 53 \\ x+8 &= \pm \sqrt{53} \end{aligned}$$

$$x = -8 \pm \sqrt{53}$$