

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 $(x+4)^2=49$

② $(x+9)^2-9=0$

③ $(x-6)^2=43$

④ $(x-3)^2-19=0$

⑤ $(x+2)^2=20$

⑥ $(x+8)^2-45=0$

⑦ $(x-4)^2=63$

⑧ $(x+6)^2-28=0$

⑨ $(x+1)^2=6$

⑩ $(x-5)^2-4=0$

⑪ $(x-2)^2-36=0$

⑫ $(x+7)^2=25$

⑬ $(x-7)^2=55$

⑭ $(x-9)^2-18=0$

⑮ $(x-1)^2=12$

⑯ $(x-8)^2-16=0$

⑰ $(x+5)^2-24=0$

⑱ $(x+3)^2=53$

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■ 次の方程式を解きなさい。

$$\begin{aligned} \textcircled{1} (x+4)^2 &= 49 \\ x+4 &= \pm 7 \\ x &= -4 \pm 7 \end{aligned}$$

$$x = -11, 3$$

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

$$x = -12, -6$$

$$\begin{aligned} \textcircled{3} (x-6)^2 &= 43 \\ x-6 &= \pm \sqrt{43} \end{aligned}$$

$$x = 6 \pm \sqrt{43}$$

$$\begin{aligned} \textcircled{4} (x-3)^2 - 19 &= 0 \\ (x-3)^2 &= 19 \\ x-3 &= \pm \sqrt{19} \end{aligned}$$

$$x = 3 \pm \sqrt{19}$$

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

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

$$\begin{aligned} \textcircled{6} (x+8)^2 - 45 &= 0 \\ (x+8)^2 &= 45 \\ x+8 &= \pm 3\sqrt{5} \end{aligned}$$

$$x = -8 \pm 3\sqrt{5}$$

$$\begin{aligned} \textcircled{7} (x-4)^2 &= 63 \\ x-4 &= \pm 3\sqrt{7} \end{aligned}$$

$$x = 4 \pm 3\sqrt{7}$$

$$\begin{aligned} \textcircled{8} (x+6)^2 - 28 &= 0 \\ (x+6)^2 &= 28 \\ x+6 &= \pm 2\sqrt{7} \end{aligned}$$

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

$$\begin{aligned} \textcircled{9} (x+1)^2 &= 6 \\ x+1 &= \pm \sqrt{6} \end{aligned}$$

$$x = -1 \pm \sqrt{6}$$

$$\begin{aligned} \textcircled{10} (x-5)^2 - 4 &= 0 \\ (x-5)^2 &= 4 \\ x-5 &= \pm 2 \\ x &= 5 \pm 2 \end{aligned}$$

$$x = 3, 7$$

$$\begin{aligned} \textcircled{11} (x-2)^2 - 36 &= 0 \\ (x-2)^2 &= 36 \\ x-2 &= \pm 6 \\ x &= 2 \pm 6 \end{aligned}$$

$$x = -4, 8$$

$$\begin{aligned} \textcircled{12} (x+7)^2 &= 25 \\ x+7 &= \pm 5 \\ x &= -7 \pm 5 \end{aligned}$$

$$x = -12, -2$$

$$\begin{aligned} \textcircled{13} (x-7)^2 &= 55 \\ x-7 &= \pm \sqrt{55} \end{aligned}$$

$$x = 7 \pm \sqrt{55}$$

$$\begin{aligned} \textcircled{14} (x-9)^2 - 18 &= 0 \\ (x-9)^2 &= 18 \\ x-9 &= \pm 3\sqrt{2} \end{aligned}$$

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

$$\begin{aligned} \textcircled{15} (x-1)^2 &= 12 \\ x-1 &= \pm 2\sqrt{3} \end{aligned}$$

$$x = 1 \pm 2\sqrt{3}$$

$$\begin{aligned} \textcircled{16} (x-8)^2 - 16 &= 0 \\ (x-8)^2 &= 16 \\ x-8 &= \pm 4 \\ x &= 8 \pm 4 \end{aligned}$$

$$x = 4, 12$$

$$\begin{aligned} \textcircled{17} (x+5)^2 - 24 &= 0 \\ (x+5)^2 &= 24 \\ x+5 &= \pm 2\sqrt{6} \end{aligned}$$

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

$$\begin{aligned} \textcircled{18} (x+3)^2 &= 53 \\ x+3 &= \pm \sqrt{53} \end{aligned}$$

$$x = -3 \pm \sqrt{53}$$