

二次方程式 4.

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1. 次の方程式を解け。

(1) $2(x+2)^2=6$

(2) $3(x+3)^2=18$

$$\begin{aligned} 5(x-3)^2 &= 125 \\ (x-3)^2 &= 25 \\ x-3 &= \pm 5 \\ x &= 3 \pm 5 \\ x &= 3+5, x=3-5 \\ x &= 8, x=-2 \end{aligned}$$

(3) $4(x-1)^2=20$

(4) $2(x+3)^2=98$

(5) $3(x+5)^2=48$

2. 次の方程式を解け。

(1) $3(x+2)^2-18=0$

(2) $4(x+1)^2-20=0$

$$\begin{aligned} 5(x-2)^2-60 &= 0 \\ 5(x-2)^2 &= 60 \\ (x-2)^2 &= 12 \\ x-2 &= \pm\sqrt{12} \\ x &= 2 \pm \sqrt{12} \\ x &= 2 \pm 2\sqrt{3} \end{aligned}$$

(3) $2(x+5)^2-54=0$

(4) $5(x-2)^2-80=0$

(5) $2(x-7)^2-98=0$

3. 次の方程式を解け。(まとめ)

(1) $x^2=16$

(2) $x^2=\frac{16}{25}$

(3) $x^2=6$

(4) $x^2=27$

(5) $x^2-25=0$

(6) $x^2-100=0$

(7) $x^2-18=0$

(8) $x^2-72=0$

(9) $5x^2=45$

(10) $6x^2=150$

(11) $3x^2=21$

(12) $3x^2=54$

(13) $5x^2-20=0$

(14) $2x^2-98=0$

(15) $3x^2-15=0$

(16) $2x^2-64=0$

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

(18) $(x-1)^2=8$

(19) $(x-3)^2=25$

(20) $(x+4)^2=49$

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

(22) $(x-6)^2-12=0$

(23) $(x-4)^2-36=0$

(24) $(x+10)^2-81=0$

(25) $3(x+6)^2=24$

(26) $5(x+3)^2-18=0$

(27) $4(x-3)^2-108=0$