2次方程式

■ 次の方程式を解きなさい。

① $3x^2 + 9 = 117$

$x =$

② $x^2 - 22 = 0$

$x =$

③ $25x^2 = 4$

$x =$

④ $80x^2 = 105$

$x =$

⑤ $16x^2 - 63 = 0$

$x =$

⑥ $49x^2 - 25 = 0$

$x =$

⑦ $x^2 = 7$

$x =$

⑧ $x^2 + 8 = 52$

$x =$

⑨ $x^2 + 4 = 19$

$x =$

⑩ $108x^2 - 3 = 72$

$x =$

⑪ $x^2 + 8 = 12$

$x =$

⑫ $16x^2 - 15 = 0$

$x =$

⑬ $5x^2 - 3 = 197$

$x =$

⑭ $49x^2 - 2 = 20$

$x =$

⑮ $x^2 = 32$

$x =$

⑯ $9x^2 + 4 = 32$

$x =$

⑰ $2x^2 = 52$

$x =$

⑱ $8x^2 - 168 = 0$

$x =$

■ 次の方程式を解きなさい。

① $3x^2+9=117$

$3x^2=108$

$x^2=36$

$x = \pm 6$

② $x^2-22=0$

$x^2=22$

$x = \pm\sqrt{22}$

③ $25x^2=4$

$x^2=\dfrac{4}{25}$

$x = \pm\dfrac{2}{5}$

④ $80x^2=105$

$16x^2=21$

$x^2=\dfrac{21}{16}$

$x = \pm\dfrac{\sqrt{21}}{4}$

⑤ $16x^2-63=0$

$16x^2=63$

$x^2=\dfrac{63}{16}$

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

⑥ $49x^2-25=0$

$49x^2=25$

$x^2=\dfrac{25}{49}$

$x = \pm\dfrac{5}{7}$

⑦ $x^2=7$

$x = \pm\sqrt{7}$

⑧ $x^2+8=52$

$x^2=44$

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

⑨ $x^2+4=19$

$x^2=15$

$x = \pm\sqrt{15}$

⑩ $108x^2-3=72$

$108x^2=75$

$36x^2=25$

$x^2=\dfrac{25}{36}$

$x = \pm\dfrac{5}{6}$

⑪ $x^2+8=12$

$x^2=4$

$x = \pm 2$

⑫ $16x^2-15=0$

$16x^2=15$

$x^2=\dfrac{15}{16}$

$x = \pm\dfrac{\sqrt{15}}{4}$

⑬ $5x^2-3=197$

$5x^2=200$

$x^2=40$

$x = \pm 2\sqrt{10}$

⑭ $49x^2-2=20$

$49x^2=22$

$x^2=\dfrac{22}{49}$

$x = \pm\dfrac{\sqrt{22}}{7}$

⑮ $x^2=32$

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

⑯ $9x^2+4=32$

$9x^2=28$

$x^2=\dfrac{28}{9}$

$x = \pm\dfrac{2\sqrt{7}}{3}$

⑰ $2x^2=52$

$x^2=26$

$x = \pm\sqrt{26}$

⑱ $8x^2-168=0$

$8x^2=168$

$x^2=21$

$x = \pm\sqrt{21}$