

Zhou /

次の2次方程式を解け。

(1) $x(x-5) = 0$

(3) $4x^2 + 4x + 1 = 0$

(5) $x^2 - 4x - 1 = 0$

(7) $-2x^2 + 4x + 3 = 0$

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

(4) $2x^2 - 5x + 1 = 0$

(6) $x^2 + 2\sqrt{7}x + 5 = 0$

(8) $(x+6)(x-1) = x(7-3x)$

1) $x = 0, 5$

2) $\begin{matrix} 2 & \times & 3 & \rightarrow & 9 \\ 3 & & -4 & \rightarrow & -8 \end{matrix}$

$(2x+3)(3x-4) = 0$

$x = -\frac{3}{2}, \frac{4}{3}$

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

$x = -\frac{1}{2}$

4) $\begin{matrix} 1 & \times & 1 \\ 2 & & 1 \end{matrix}$

$x = \frac{5 \pm \sqrt{25-8}}{4}$

$x = \frac{5 \pm \sqrt{17}}{4}$

5) $x = \frac{4 \pm \sqrt{16+4}}{2}$

$x = \frac{4 \pm 2\sqrt{5}}{2} \quad x = 2 \pm \sqrt{5}$

6) $(x+\sqrt{7})^2 - 7 + 5 = 0$

$(x+\sqrt{7})^2 = 2$

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

7) $2x^2 - 4x - 3 = 0$

$x = \frac{4 \pm \sqrt{16+24}}{4}$

$x = \frac{4 \pm 2\sqrt{10}}{4}$

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

8) $x^2 + 5x - 6 = 7x - 3x^2$

$4x^2 - 2x - 6 = 0$

$2x^2 - x - 3 = 0$

$\begin{matrix} 1 & \times & 1 & \rightarrow & 2 \\ 2 & & -3 & \rightarrow & -3 \end{matrix}$

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

$x = -1, \frac{3}{2}$