

1 次の2次方程式を解の公式を使って解きなさい。

① $3x^2 + 5x + 2 = 0$

② $4x^2 + x - 3 = 0$

③ $2x^2 - 5x + 3 = 0$

④ $6x^2 - 5x - 2 = 0$

1 次の2次方程式を解の公式を使って解きなさい。

① $3x^2 + 5x + 2 = 0$

$$x = -\frac{3}{4}, x = -\frac{1}{4}$$

$$x = \frac{-2 \pm \sqrt{5^2 - 4 \times 3 \times 2}}{2 \times 3}$$

$$= \frac{-2 \pm \sqrt{25 - 24}}{6}$$

$$= \frac{-2 \pm \sqrt{1}}{4}$$

$$= \frac{-2 \pm 1}{4}$$

$$x = -\frac{3}{4}, x = -\frac{1}{4}$$

② $4x^2 + x - 3 = 0$

$$x = -\frac{3}{4}, x = 1$$

$$x = \frac{-1 \pm \sqrt{1^2 - 4 \times 4 \times (-3)}}{2 \times 4}$$

$$= \frac{-1 \pm \sqrt{1 + 48}}{8}$$

$$= \frac{-1 \pm \sqrt{49}}{6}$$

$$= \frac{-1 \pm 7}{6}$$

$$x = -\frac{4}{3}, x = 1$$

③ $2x^2 - 5x + 3 = 0$

$$x = 1, x = 2$$

$$x = \frac{5 \pm \sqrt{(-5)^2 - 4 \times 2 \times 3}}{2 \times 2}$$

$$= \frac{5 \pm \sqrt{25 - 24}}{4}$$

$$= \frac{5 \pm \sqrt{1}}{4}$$

$$= \frac{5 \pm 1}{4}$$

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

④ $6x^2 - 5x - 2 = 0$

$$x = \frac{5 \pm \sqrt{73}}{12}$$

$$x = \frac{5 \pm \sqrt{(-5)^2 - 4 \times 6 \times (-2)}}{2 \times 6}$$

$$= \frac{5 \pm \sqrt{25 + 48}}{12}$$

$$x = \frac{5 \pm \sqrt{73}}{12}$$