

Cコース

例題①

$$16x^2 = 7$$

$$\frac{16x^2}{16} = \frac{7}{16}$$

$$x^2 = \frac{7}{16}$$

$$x = \pm \sqrt{\frac{7}{16}}$$

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

分母の有理化

分母の有理化

$$\begin{aligned} & \sqrt{\frac{7}{16}} \\ &= \frac{\sqrt{7}}{\sqrt{16}} \\ &= \frac{\sqrt{7}}{4} \end{aligned}$$

Cコース

例題②

$$5x^2 = 2$$

$$\frac{5x^2}{5} = \frac{2}{5}$$

$$x^2 = \frac{2}{5}$$

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

$$x = \pm \frac{\sqrt{10}}{5}$$

分母の有理化

分母の有理化

$$\begin{aligned} & \sqrt{\frac{2}{5}} \\ &= \frac{\sqrt{2}}{\sqrt{5}} \\ &= \frac{\sqrt{2} \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} \\ &= \frac{\sqrt{10}}{5} \end{aligned}$$

ルートの中の簡単化

|                 |                 |                         |                          |
|-----------------|-----------------|-------------------------|--------------------------|
| $\sqrt{1} = 1$  | $\sqrt{36} = 6$ | $\sqrt{8} = 2\sqrt{2}$  | $\sqrt{27} = 3\sqrt{3}$  |
| $\sqrt{4} = 2$  | $\sqrt{49} = 7$ | $\sqrt{12} = 2\sqrt{3}$ | $\sqrt{28} = 2\sqrt{7}$  |
| $\sqrt{9} = 3$  | $\sqrt{64} = 8$ | $\sqrt{18} = 3\sqrt{2}$ | $\sqrt{32} = 4\sqrt{2}$  |
| $\sqrt{16} = 4$ | $\sqrt{81} = 9$ | $\sqrt{20} = 2\sqrt{5}$ | $\sqrt{40} = 2\sqrt{10}$ |
| $\sqrt{25} = 5$ |                 | $\sqrt{24} = 2\sqrt{6}$ |                          |

Cコース

例題③

$$3x^2 = 16$$

$$x^2 = \frac{16}{3}$$

$$x = \pm \sqrt{\frac{16}{3}}$$

$$x = \pm \frac{\sqrt{48}}{3}$$

分母の有理化

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

$\sqrt{\quad}$ の中の簡単化

分母の有理化

$$\begin{aligned} & \sqrt{\frac{16}{3}} \\ &= \frac{\sqrt{16}}{\sqrt{3}} \\ &= \frac{\sqrt{16} \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} \\ &= \frac{\sqrt{48}}{3} \end{aligned}$$

Cコース

例題④

$$2x^2 = \frac{5}{3}$$

$$\frac{2x^2}{2} = \frac{5}{3 \times 2}$$

$$x^2 = \frac{5}{6}$$

$$x = \pm \sqrt{\frac{5}{6}}$$

$$x = \pm \frac{\sqrt{30}}{6}$$

分母の有理化

分母がある場合は  
分母にかける！

$$\begin{aligned} & \sqrt{\frac{5}{6}} \\ &= \frac{\sqrt{5}}{\sqrt{6}} \\ &= \frac{\sqrt{5} \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}} \\ &= \frac{\sqrt{30}}{6} \end{aligned}$$