

91

平方根の乗除

年 組 番 名前

● 例題 1 ●

次の数を $a\sqrt{b}$ の形に変形しなさい。

$$\begin{aligned}
 (1) \quad & \sqrt{24} \\
 &= \sqrt{4 \times 6} \\
 &= \sqrt{4} \times \sqrt{6} \\
 &= 2\sqrt{6}
 \end{aligned}$$

$$\begin{array}{r}
 2 \overline{) 24} \\
 \underline{2} \\
 0 \\
 2 \overline{) 12} \\
 \underline{2} \\
 0 \\
 2 \overline{) 6} \\
 \underline{2} \\
 0
 \end{array}$$

→ 85へ

問1 次の数を $a\sqrt{b}$ の形に変形しなさい。

$$\begin{aligned}
 (1) \quad & \sqrt{8} \\
 &= 2\sqrt{2}
 \end{aligned}$$

答. $2\sqrt{2}$

$$\begin{aligned}
 (2) \quad & \sqrt{18} \\
 &= 3\sqrt{2}
 \end{aligned}$$

答. $3\sqrt{2}$

$$\begin{aligned}
 (3) \quad & \sqrt{27} \\
 &= 3\sqrt{3}
 \end{aligned}$$

答. $3\sqrt{3}$

$$\begin{aligned}
 (4) \quad & \sqrt{32} \\
 &= 4\sqrt{2}
 \end{aligned}$$

答. $4\sqrt{2}$

$$\begin{aligned}
 (5) \quad & \sqrt{48} \\
 &= 4\sqrt{3}
 \end{aligned}$$

答. $4\sqrt{3}$

$$\begin{aligned}
 (6) \quad & \sqrt{54} \\
 &= 3\sqrt{6}
 \end{aligned}$$

答. $3\sqrt{6}$

$$\begin{aligned}
 (7) \quad & \sqrt{72} \\
 &= 6\sqrt{2}
 \end{aligned}$$

答. $6\sqrt{2}$

$$\begin{aligned}
 (8) \quad & \sqrt{80} \\
 &= 4\sqrt{5}
 \end{aligned}$$

答. $4\sqrt{5}$

$$\begin{aligned}
 (9) \quad & \sqrt{96} \\
 &= 4\sqrt{6}
 \end{aligned}$$

答. $4\sqrt{6}$

$$\begin{aligned}
 (10) \quad & \sqrt{112} \\
 &= 4\sqrt{7}
 \end{aligned}$$

答. $4\sqrt{7}$

$$\begin{aligned}
 (11) \quad & \sqrt{128} \\
 &= 8\sqrt{2}
 \end{aligned}$$

答. $8\sqrt{2}$

● 例題 2 ●

次の数を \sqrt{a} の形になおしなさい。

$$(1) \quad \sqrt{\frac{3}{4}} = \frac{\sqrt{3}}{\sqrt{4}} = \frac{\sqrt{3}}{2}$$

$$\begin{aligned}
 (2) \quad \sqrt{0.03} &= \sqrt{\frac{3}{100}} = \frac{\sqrt{3}}{\sqrt{100}} \\
 &= \frac{\sqrt{3}}{10}
 \end{aligned}$$

→ 90の例題2へ

問2 上の例にならって、次の数を書き直しなさい。

$$(1) \quad \sqrt{\frac{5}{4}} = \frac{\sqrt{5}}{\sqrt{4}} = \frac{\sqrt{5}}{2} \quad \text{答. } \frac{\sqrt{5}}{2}$$

$$(2) \quad \sqrt{\frac{7}{9}} = \frac{\sqrt{7}}{\sqrt{9}} = \frac{\sqrt{7}}{3} \quad \text{答. } \frac{\sqrt{7}}{3}$$

$$\begin{aligned}
 (3) \quad \sqrt{0.05} &= \sqrt{\frac{5}{100}} = \frac{\sqrt{5}}{\sqrt{100}} \\
 &= \frac{\sqrt{5}}{10} \quad \text{答. } \frac{\sqrt{5}}{10}
 \end{aligned}$$

$$\begin{aligned}
 (4) \quad \sqrt{0.07} &= \sqrt{\frac{7}{100}} = \frac{\sqrt{7}}{\sqrt{100}} \\
 &= \frac{\sqrt{7}}{10} \quad \text{答. } \frac{\sqrt{7}}{10}
 \end{aligned}$$