

1 次の計算をなさい。

① $\sqrt{3} \times \sqrt{5}$

② $\sqrt{2} \times \sqrt{7}$

③ $\sqrt{6} \times \sqrt{7}$

④ $\sqrt{7} \times \sqrt{13}$

2 次の数を $a\sqrt{b}$ の形になさい。

① $\sqrt{52}$

② $\sqrt{32}$

3 次の計算をし、根号の中はできるだけ小さい自然数になさい。

① $\sqrt{20} \times \sqrt{8}$

② $\sqrt{9} \times \sqrt{27}$

③ $3\sqrt{5} \times 4\sqrt{8}$

④ $\sqrt{6} \times (-2\sqrt{7})$

⑤ $\sqrt{50} \times \sqrt{32}$

⑥ $(-4\sqrt{6})^2$

1 次の計算をなさい。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{3} \times \sqrt{5} \\ & = \sqrt{3 \times 5} \\ & = \sqrt{15} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \sqrt{2} \times \sqrt{7} \\ & = \sqrt{2 \times 7} \\ & = \sqrt{14} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & \sqrt{6} \times \sqrt{7} \\ & = \sqrt{6 \times 7} \\ & = \sqrt{42} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \sqrt{7} \times \sqrt{13} \\ & = \sqrt{7 \times 13} \\ & = \sqrt{91} \end{aligned}$$

2 次の数を $a\sqrt{b}$ の形になさい。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{52} \\ & = \sqrt{4 \times 13} \\ & = \sqrt{2^2 \times 13} \\ & = 2\sqrt{13} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \sqrt{32} \\ & = \sqrt{4 \times 8} \\ & = \sqrt{2^2 \times 8} \\ & = 2\sqrt{8} \end{aligned}$$

3 次の計算をし、根号の中はできるだけ小さい自然数になさい。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{20} \times \sqrt{8} \\ & = 2\sqrt{5} \times 2\sqrt{2} \\ & = 2 \times 2 \times \sqrt{2} \times \sqrt{5} \\ & = 4\sqrt{10} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \sqrt{9} \times \sqrt{27} \\ & = 3 \times 3\sqrt{3} \\ & = 9\sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & 3\sqrt{5} \times 4\sqrt{8} \\ & = 3 \times 4 \times \sqrt{5} \times \sqrt{8} \\ & = 12\sqrt{40} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \sqrt{6} \times (-2\sqrt{7}) \\ & = -2 \times \sqrt{6} \times \sqrt{7} \\ & = -2\sqrt{42} \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & \sqrt{50} \times \sqrt{32} \\ & = 5\sqrt{2} \times 4\sqrt{2} \\ & = 4 \times 5 \times (\sqrt{2})^2 \\ & = 40 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & (-4\sqrt{6})^2 \\ & = 4^2 \times (\sqrt{6})^2 \\ & = 16 \times 6 \\ & = 96 \end{aligned}$$