

1 次の計算をなさい。

① $\sqrt{5} \times \sqrt{7}$

② $\sqrt{2} \times \sqrt{3}$

③ $\sqrt{7} \times \sqrt{13}$

④ $\sqrt{3} \times \sqrt{17}$

2 次の数を $a\sqrt{b}$ の形になさい。

① $\sqrt{12}$

② $\sqrt{40}$

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 $\sqrt{15} \times \sqrt{9}$

② $\sqrt{8} \times \sqrt{21}$

③ $2\sqrt{6} \times 3\sqrt{7}$

④ $\sqrt{5} \times (-4\sqrt{6})$

⑤ $\sqrt{32} \times \sqrt{60}$

⑥ $(-2\sqrt{8})^2$

1 次の計算をなさい。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{5} \times \sqrt{7} \\ & = \sqrt{5 \times 7} \\ & = \sqrt{35} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \sqrt{2} \times \sqrt{3} \\ & = \sqrt{2 \times 3} \\ & = \sqrt{6} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & \sqrt{7} \times \sqrt{13} \\ & = \sqrt{7 \times 13} \\ & = \sqrt{91} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \sqrt{3} \times \sqrt{17} \\ & = \sqrt{3 \times 17} \\ & = \sqrt{51} \end{aligned}$$

2 次の数を $a\sqrt{b}$ の形になさい。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{12} \\ & = \sqrt{4 \times 3} \\ & = \sqrt{2^2 \times 3} \\ & = 2\sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \sqrt{40} \\ & = \sqrt{4 \times 10} \\ & = \sqrt{2^2 \times 10} \\ & = 2\sqrt{10} \end{aligned}$$

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。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{15} \times \sqrt{9} \\ & = \sqrt{15} \times 3 \\ & = 3\sqrt{15} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \sqrt{8} \times \sqrt{21} \\ & = 2\sqrt{2} \times \sqrt{21} \\ & = 3\sqrt{42} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & 2\sqrt{6} \times 3\sqrt{7} \\ & = 2 \times 3 \times \sqrt{6} \times \sqrt{7} \\ & = 6\sqrt{42} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \sqrt{5} \times (-4\sqrt{6}) \\ & = -4 \times \sqrt{5} \times \sqrt{6} \\ & = -4\sqrt{30} \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & \sqrt{32} \times \sqrt{60} \\ & = 4\sqrt{2} \times 2\sqrt{15} \\ & = 2 \times 4 \times \sqrt{2} \times \sqrt{15} \\ & = 8\sqrt{30} \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & (-2\sqrt{8})^2 \\ & = 2^2 \times (\sqrt{8})^2 \\ & = 4 \times 8 \\ & = 32 \end{aligned}$$