

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  $3\sqrt{5} \times 4\sqrt{6}$

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。

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

$$\begin{aligned} \textcircled{2} \quad & \sqrt{32} \\ &= \sqrt{16 \times 2} \\ &= \sqrt{4^2 \times 2} \\ &= 4\sqrt{2} \end{aligned}$$

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。

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

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

$$\begin{aligned} \textcircled{3} \quad & 3\sqrt{5} \times 4\sqrt{6} \\ &= 3 \times 4 \times \sqrt{5} \times \sqrt{6} \\ &= 12\sqrt{30} \end{aligned}$$

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

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

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