

# 平方根の積と商

学習日 月 日

年 組 番 氏名

## POINT

正の数  $a, b$  において,

$$\sqrt{a} \times \sqrt{b} = \sqrt{ab}, \frac{\sqrt{a}}{\sqrt{b}} = \sqrt{\frac{a}{b}}$$

(1) 次の  にあてはまる数を入れなさい。

$$\begin{aligned} \textcircled{1} \quad \sqrt{5} \times \sqrt{6} &= \sqrt{\square \times \square} \\ &= \sqrt{\square} \end{aligned}$$

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

$$\begin{aligned} \textcircled{3} \quad \sqrt{54} \div \sqrt{6} &= \frac{\sqrt{54}}{\sqrt{6}} \\ &= \sqrt{\square} \\ &= \square \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad \frac{\sqrt{42}}{\sqrt{7}} &= \frac{\sqrt{\square}}{\sqrt{\square}} \\ &= \sqrt{\square} \end{aligned}$$

(2) 次の計算をなさい。

$$\textcircled{1} \quad \sqrt{7} \times \sqrt{5}$$

$$\textcircled{2} \quad \sqrt{2} \times \sqrt{8}$$

$$\textcircled{3} \quad \sqrt{10} \times \sqrt{13}$$

$$\textcircled{4} \quad \sqrt{2} \times \sqrt{18}$$

$$\textcircled{5} \quad \sqrt{27} \times \sqrt{3}$$

$$\textcircled{6} \quad \sqrt{21} \div \sqrt{7}$$

$$\textcircled{7} \quad \sqrt{50} \div \sqrt{2}$$

$$\textcircled{8} \quad \sqrt{3} \div \sqrt{12}$$

$$\textcircled{9} \quad \frac{\sqrt{20}}{\sqrt{5}}$$

$$\textcircled{10} \quad \frac{\sqrt{147}}{\sqrt{3}}$$

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(1) 次の  にあてはまる数を入れなさい。

$$\begin{aligned} \textcircled{1} \quad \sqrt{5} \times \sqrt{6} &= \sqrt{\boxed{5} \times \boxed{6}} \\ &= \sqrt{\boxed{30}} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad \sqrt{12} \times \sqrt{3} &= \sqrt{\boxed{12} \times \boxed{3}} \\ &= \sqrt{\boxed{36}} \\ &= \boxed{6} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad \sqrt{54} \div \sqrt{6} &= \frac{\sqrt{54}}{\sqrt{6}} \\ &= \sqrt{\boxed{9}} \\ &= \boxed{3} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad \frac{\sqrt{42}}{\sqrt{7}} &= \sqrt{\frac{\boxed{42}}{\boxed{7}}} \\ &= \sqrt{\boxed{6}} \end{aligned}$$

(2) 次の計算をなさい。

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

$$\begin{aligned} \textcircled{2} \quad \sqrt{2} \times \sqrt{8} \\ &= \sqrt{2 \times 8} \\ &= \sqrt{16} \\ &= 4 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad \sqrt{10} \times \sqrt{13} \\ &= \sqrt{10 \times 13} \\ &= \sqrt{130} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad \sqrt{2} \times \sqrt{18} \\ &= \sqrt{2 \times 18} \\ &= \sqrt{36} \\ &= 6 \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad \sqrt{27} \times \sqrt{3} \\ &= \sqrt{27 \times 3} \\ &= \sqrt{81} \\ &= 9 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad \sqrt{21} \div \sqrt{7} \\ &= \sqrt{\frac{21}{7}} \\ &= \sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad \sqrt{50} \div \sqrt{2} \\ &= \sqrt{\frac{50}{2}} \\ &= \sqrt{25} \\ &= 5 \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad \sqrt{3} \div \sqrt{12} \\ &= \sqrt{\frac{3}{12}} \\ &= \sqrt{\frac{1}{4}} \\ &= \frac{1}{2} \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad \frac{\sqrt{20}}{\sqrt{5}} \\ &= \sqrt{\frac{20}{5}} \\ &= \sqrt{4} \\ &= 2 \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad \frac{\sqrt{147}}{\sqrt{3}} \\ &= \sqrt{\frac{147}{3}} \\ &= \sqrt{49} \\ &= 7 \end{aligned}$$