

学習日 月 日

年 組 番 氏名

1 復習しよう。(p.46)

平方根の積と商

①  $\sqrt{a} \times \sqrt{b} =$

②  $\frac{\sqrt{a}}{\sqrt{b}} =$

2 次の計算をなさい。(p.46)

(1)  $\sqrt{3} \times \sqrt{27}$  (2)  $\sqrt{54} \div \sqrt{6}$

$= \sqrt{\square \times \square}$   $= \sqrt{\square}$

$= \sqrt{\square}$   $= \sqrt{\square}$

$= \sqrt{\square^2}$   $= \sqrt{\frac{\square}{\square}}$

$= \square$   $= \sqrt{\square}$

$= \square$   $= \sqrt{\square^2}$

$= \square$   $= \square$

3 次の計算をなさい。(p.46)

(1)  $\sqrt{7} \times \sqrt{6}$  (2)  $(-\sqrt{5}) \times \sqrt{20}$

(3)  $\sqrt{2} \times \sqrt{32}$  (4)  $\frac{\sqrt{15}}{\sqrt{3}}$

(5)  $\sqrt{108} \div \sqrt{3}$  (6)  $\sqrt{125} \div (-\sqrt{5})$

4 次の式を  $\sqrt{a}$  の形に表しなさい。(p.47)

(1)  $3\sqrt{5} = \sqrt{\square} \times \sqrt{5}$

$= \sqrt{\square \times \square}$

$= \sqrt{\square}$

(2)  $a\sqrt{b} = \sqrt{\square^2} \times \sqrt{b}$

$= \sqrt{\square^2 \times \square}$

$= \sqrt{\square}$

$2 = \sqrt{4}$   
 $3 = \sqrt{\quad}$   
 $4 =$   
 $5 =$   
 整数を根号の  
 ついた数になお  
 せると早くでき  
 ます。



5 次の式を  $\sqrt{a}$  の形にしなさい。(p.47)

(1)  $2\sqrt{6}$  (2)  $4\sqrt{2}$

(3)  $5\sqrt{5}$  (4)  $6\sqrt{3}$

1 平方根の積と商

$$\textcircled{1} \sqrt{a} \times \sqrt{b} = \sqrt{ab}$$

$$\textcircled{2} \frac{\sqrt{a}}{\sqrt{b}} = \sqrt{\frac{a}{b}}$$

2

$$\begin{aligned} (1) \quad & \sqrt{3} \times \sqrt{27} \\ &= \sqrt{\boxed{3} \times \boxed{27}} \\ &= \sqrt{\boxed{81}} \\ &= \sqrt{\boxed{9}^2} \\ &= \boxed{9} \end{aligned}$$

$$\begin{aligned} (2) \quad & \sqrt{54} \div \sqrt{6} \\ &= \sqrt{\frac{\boxed{54}}{\boxed{6}}} \\ &= \sqrt{\boxed{9}} \\ &= \sqrt{\boxed{3}^2} \\ &= \boxed{3} \end{aligned}$$

3

$$\begin{aligned} (1) \quad & \sqrt{7} \times \sqrt{6} \\ &= \sqrt{7 \times 6} \\ &= \sqrt{42} \end{aligned}$$

$$\begin{aligned} (2) \quad & (-\sqrt{5}) \times \sqrt{20} \\ &= -\sqrt{5 \times 20} \\ &= -\sqrt{100} \\ &= -\sqrt{10^2} \\ &= -10 \end{aligned}$$

$$\begin{aligned} (3) \quad & \sqrt{2} \times \sqrt{32} \\ &= \sqrt{2 \times 32} \\ &= \sqrt{64} \\ &= \sqrt{8^2} \\ &= 8 \end{aligned}$$

$$\begin{aligned} (4) \quad & \frac{\sqrt{15}}{\sqrt{3}} \\ &= \sqrt{\frac{15}{3}} \\ &= \sqrt{5} \end{aligned}$$

$$\begin{aligned} (5) \quad & \sqrt{108} \div \sqrt{3} \\ &= \frac{\sqrt{108}}{\sqrt{3}} \\ &= \sqrt{\frac{108}{3}} \\ &= \sqrt{36} \\ &= \sqrt{6^2} \\ &= 6 \end{aligned}$$

$$\begin{aligned} (6) \quad & \sqrt{125} \div (-\sqrt{5}) \\ &= -\frac{\sqrt{125}}{\sqrt{5}} \\ &= -\sqrt{\frac{125}{5}} \\ &= -\sqrt{25} \\ &= -\sqrt{5^2} \\ &= -5 \end{aligned}$$

4

$$\begin{aligned} (1) \quad & 3\sqrt{5} = \sqrt{\boxed{9}} \times \sqrt{5} \\ &= \sqrt{\boxed{9} \times \boxed{5}} \\ &= \sqrt{\boxed{45}} \\ (2) \quad & a\sqrt{b} = \sqrt{\boxed{a}^2} \times \sqrt{b} \\ &= \sqrt{\boxed{a}^2 \times \boxed{b}} \\ &= \sqrt{\boxed{a^2 b}} \end{aligned}$$

$2 = \sqrt{4}$   
 $3 = \sqrt{9}$   
 $4 = \sqrt{16}$   
 $5 = \sqrt{25}$   
 整数を根号の  
 ついた数になお  
 せると早くでき  
 ます。

5

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

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

$$\begin{aligned} (3) \quad & 5\sqrt{5} \\ &= \sqrt{25} \times \sqrt{5} \\ &= \sqrt{25 \times 5} \\ &= \sqrt{125} \end{aligned}$$

$$\begin{aligned} (4) \quad & 6\sqrt{3} \\ &= \sqrt{36} \times \sqrt{3} \\ &= \sqrt{36 \times 3} \\ &= \sqrt{108} \end{aligned}$$