

2章(平方根) 2節(平方根をふくむ式の計算)

年 組 番

1. 平方根の乗法

名前

1. 次の計算をなさい。

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

$$\sqrt{14}$$

$$\begin{aligned} & \sqrt{5}\sqrt{17} \\ & = \sqrt{5 \times 17} \\ & = \sqrt{85} \end{aligned}$$

$$\sqrt{85}$$

$$\begin{aligned} & \sqrt{6}\sqrt{24} \\ & = \sqrt{6 \times 24} \\ & = \sqrt{144} \\ & = 12 \end{aligned}$$

$$12$$

2. 次の ~ を \sqrt{a} の形になおしなさい。

$$\begin{aligned} & 3\sqrt{2} \\ & = \sqrt{9}\sqrt{2} \\ & = \sqrt{9 \times 2} \\ & = \sqrt{18} \end{aligned}$$

$$\sqrt{18}$$

$$\begin{aligned} & 5\sqrt{6} \\ & = \sqrt{25}\sqrt{6} \\ & = \sqrt{25 \times 6} \\ & = \sqrt{150} \end{aligned}$$

$$\sqrt{150}$$

$$\begin{aligned} & 100\sqrt{75} \\ & = \sqrt{10000}\sqrt{75} \\ & = \sqrt{10000 \times 75} \\ & = \sqrt{750000} \end{aligned}$$

$$\sqrt{750000}$$

3. 次の ~ を $a\sqrt{b}$ の形になおしなさい。

$$\begin{aligned} & \sqrt{24} \\ & = \sqrt{2 \times 2 \times 2 \times 3} \\ & = \sqrt{2^2 \times 6} \\ & = 2\sqrt{6} \end{aligned}$$

$$2\sqrt{6}$$

$$\begin{aligned} & -\sqrt{162} \\ & = -\sqrt{2 \times 3 \times 3 \times 3 \times 3} \\ & = -\sqrt{3^4 \times 2} \\ & = -9\sqrt{2} \end{aligned}$$

$$-9\sqrt{2}$$

$$\begin{aligned} & \sqrt{30000} \\ & = \sqrt{2 \times 2 \times 2 \times 2 \times 3 \times 5 \times 5 \times 5} \\ & = \sqrt{2^4 \times 5^4 \times 3} \\ & = 100\sqrt{3} \end{aligned}$$

$$100\sqrt{3}$$