

平方根（根号を含む式の乗法・除法）

組 番 名前

1 次の計算をなさい。

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

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

$$\begin{aligned} \textcircled{3} \quad & \sqrt{12} \times \sqrt{18} \\ & = 2\sqrt{3} \times 3\sqrt{2} \\ & = 6\sqrt{6} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \sqrt{32} \times \sqrt{20} \\ & = 4\sqrt{2} \times 2\sqrt{5} \\ & = 8\sqrt{10} \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & -4\sqrt{2} \times 3\sqrt{6} \\ & = -4 \times 3 \times \sqrt{2 \times 2 \times 3} \\ & = -24\sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & 2\sqrt{3} \times 3\sqrt{6} \\ & = 2 \times 3 \times \sqrt{3 \times 2 \times 3} \\ & = 18\sqrt{2} \end{aligned}$$

2 次の計算をなさい。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{34} \div \sqrt{2} \\ & = \sqrt{17} \end{aligned}$$

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

$$\begin{aligned} \textcircled{3} \quad & -\sqrt{35} \div \sqrt{7} \\ & = -\sqrt{5} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & \sqrt{54} \div \sqrt{2} \\ & = \sqrt{27} \\ & = 3\sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \sqrt{98} \div (-\sqrt{2}) \\ & = -\sqrt{49} \\ & = -7 \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & \sqrt{\frac{1}{2}} \div \sqrt{8} \\ & = \sqrt{\frac{1}{2}} \times \sqrt{\frac{1}{8}} \\ & = \sqrt{\frac{1}{16}} \\ & = \frac{1}{4} \end{aligned}$$

3 次の計算をなさい。

$$\begin{aligned} \textcircled{1} \quad & \sqrt{21} \div \sqrt{2} \times \sqrt{6} \\ & = \frac{\sqrt{21}}{\sqrt{2}} \times \sqrt{6} \\ & = \sqrt{21} \times \sqrt{3} \\ & = 3\sqrt{7} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \sqrt{15} \div \sqrt{5} \times \sqrt{3} \\ & = \sqrt{3} \times \sqrt{3} \\ & = 3 \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & 4\sqrt{2} \times \sqrt{12} \div \sqrt{18} \\ & = 8\sqrt{6} \div 3\sqrt{2} \\ & = \frac{8\sqrt{3}}{3} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \sqrt{56} \div (-\sqrt{2}) \div \sqrt{14} \\ & = -\sqrt{28} \div \sqrt{14} \\ & = -\sqrt{2} \end{aligned}$$