

9 平方根の計算 3

1 次の計算をなさい。

$$\sqrt{2^2}$$

$$\sqrt{(-5)^2}$$

$$(-\sqrt{3})^2$$

$$-\sqrt{7^2}$$

2 次の計算をなさい

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

$$\sqrt{12} \times \sqrt{18}$$

$$2\sqrt{3} \times 3\sqrt{7}$$

$$\textcircled{4} \sqrt{5} + 6\sqrt{5}$$

$$\textcircled{5} \sqrt{2} + 1 - 2\sqrt{2} + 4$$

$$\textcircled{6} \sqrt{72} + \sqrt{32}$$

3 次の計算をなさい。

$$\sqrt{30} \div \sqrt{5}$$

$$\sqrt{12} \times \sqrt{\frac{5}{6}}$$

$$\sqrt{\frac{2}{3}} \times \sqrt{21}$$

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

$$2\sqrt{6} \times 3\sqrt{2}$$

$$4\sqrt{2} \times 5\sqrt{5}$$

$$\sqrt{2} + \sqrt{2}$$

$$\sqrt{3} - 3\sqrt{3}$$

$$\sqrt{8} + \sqrt{200}$$

4 分母にルートがない形に直しなさい。

$$\frac{1}{\sqrt{2}}$$

$$\frac{4}{\sqrt{8}}$$

$$\sqrt{\frac{2}{3}}$$

$$\frac{9}{4\sqrt{3}}$$

$$\sqrt{\frac{5}{2}}$$

$$\frac{6}{\sqrt{18}}$$

$$\frac{5}{\sqrt{7}}$$

5 計算しなさい。

$$12\sqrt{3} \times \frac{5}{6}\sqrt{2}$$

$$\sqrt{98} \times \sqrt{12}$$

$$\sqrt{42} \div \sqrt{28} \times \sqrt{10}$$

$$\frac{1}{\sqrt{8}} + \frac{\sqrt{2}}{5}$$

$$\sqrt{72} - \sqrt{32}$$

$$\sqrt{2}(\sqrt{3} + \sqrt{6})$$

6 計算しなさい。

$$\textcircled{1} \frac{6}{\sqrt{12}} \times \frac{5}{\sqrt{5}}$$

$$\textcircled{2} \frac{5\sqrt{5}}{2} + \frac{45}{2\sqrt{5}}$$

$$\textcircled{3} \sqrt{5}\left(\sqrt{5} - \frac{\sqrt{10}}{5}\right)$$

$$\textcircled{4} \sqrt{20} \times \sqrt{10}$$

$$\textcircled{5} \sqrt{8} \times \sqrt{98}$$

$$\textcircled{6} \sqrt{54} \div \sqrt{2}$$

$$\textcircled{7} 4\sqrt{3} \times 2\sqrt{15}$$

$$\textcircled{8} 3 \times 2\sqrt{3}$$

$$\textcircled{9} \sqrt{50} - \sqrt{18}$$

$$\textcircled{10} 12\sqrt{6} \div 4\sqrt{3}$$

$$\textcircled{11} \frac{4}{\sqrt{60}} - \frac{\sqrt{5}}{3}$$

$$\textcircled{12} \frac{3}{\sqrt{2}} + \sqrt{50}$$

10 答

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① 2 ② 5 ③ 3 ④ -7

2 $\sqrt{15}$ $6\sqrt{6}$ $6\sqrt{21}$ $7\sqrt{5}$ $-\sqrt{2} + 5$ $10\sqrt{2}$ **3** $\sqrt{6}$ $\sqrt{10}$ $\sqrt{14}$ $3\sqrt{15}$ $12\sqrt{3}$ $20\sqrt{10}$ $2\sqrt{2}$ $-2\sqrt{3}$ $12\sqrt{2}$ **4** $\frac{\sqrt{2}}{2}$ $\sqrt{2}$ $\frac{\sqrt{6}}{3}$ $\frac{3\sqrt{3}}{4}$ $\frac{\sqrt{10}}{2}$ $\sqrt{2}$ $\frac{5\sqrt{7}}{7}$ **5** $10\sqrt{6}$ $14\sqrt{6}$ $\sqrt{15}$ $\frac{9\sqrt{2}}{20}$ $2\sqrt{2}$ $\sqrt{6} + 2\sqrt{3}$ **6** $\sqrt{15}$ $7\sqrt{5}$ $5 - \sqrt{2}$ $10\sqrt{2}$ 28 $3\sqrt{3}$ $24\sqrt{5}$ $6\sqrt{3}$ $2\sqrt{2}$ $3\sqrt{2}$ $-\frac{\sqrt{15}}{5}$ $\frac{13\sqrt{2}}{2}$