

1 解答 (1) $\frac{\sqrt{2}}{2}$ (2) $\frac{5\sqrt{3}}{3}$ (3) $\frac{\sqrt{30}}{5}$ (4) $2\sqrt{6}$

$$(1) \frac{1}{\sqrt{2}} = \frac{1 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}}$$

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

$$(2) \frac{5}{\sqrt{3}} = \frac{5 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}}$$

$$= \frac{5\sqrt{3}}{3}$$

$$(3) \frac{\sqrt{6}}{\sqrt{5}} = \frac{\sqrt{6} \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}}$$

$$= \frac{\sqrt{30}}{5}$$

$$(4) \frac{12}{\sqrt{6}} = \frac{12 \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}}$$

$$= \frac{12\sqrt{6}}{6}$$

$$= 2\sqrt{6}$$

2 解答 (1) $\frac{\sqrt{3}}{2}$ (2) $\frac{5\sqrt{2}}{4}$ (3) $\sqrt{5}$

$$(1) \frac{3}{2\sqrt{3}} = \frac{3 \times \sqrt{3}}{2\sqrt{3} \times \sqrt{3}}$$

$$= \frac{3\sqrt{3}}{6}$$

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

$$(2) \frac{5}{\sqrt{8}} = \frac{5}{2\sqrt{2}}$$

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

$$= \frac{5\sqrt{2}}{4}$$

$$(3) \frac{10}{\sqrt{20}} = \frac{10}{2\sqrt{5}}$$

$$= \frac{5}{\sqrt{5}}$$

$$= \frac{5 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}}$$

$$= \frac{5\sqrt{5}}{5}$$

$$= \sqrt{5}$$

3 解答 (1) 0.2236 (2) 4.242 (3) 0.4472 (4) 8.944 (5) 0.1414

$$\begin{aligned}(1) \frac{1}{\sqrt{20}} &= \frac{1 \times \sqrt{20}}{\sqrt{20} \times \sqrt{20}} \\ &= \frac{\sqrt{20}}{20} \\ &= 4.472 \div 20 \\ &= 0.2236\end{aligned}$$

$$\begin{aligned}(2) \sqrt{18} &= 3\sqrt{2} \\ &= 3 \times 1.414 \\ &= 4.242\end{aligned}$$

$$\begin{aligned}(3) \sqrt{0.2} &= \sqrt{\frac{20}{100}} \\ &= \frac{\sqrt{20}}{10} \\ &= 4.472 \div 10 \\ &= 0.4472\end{aligned}$$

$$\begin{aligned}(4) \sqrt{80} &= \sqrt{4 \times 20} \\ &= 2\sqrt{20} \\ &= 2 \times 4.472 \\ &= 8.944\end{aligned}$$

$$\begin{aligned}(5) \frac{1}{\sqrt{50}} &= \frac{1}{5\sqrt{2}} \\ &= \frac{\sqrt{2}}{5\sqrt{2} \times \sqrt{2}} \\ &= \frac{\sqrt{2}}{10} \\ &= 1.414 \div 10 \\ &= 0.1414\end{aligned}$$

4 解答 (1) 70.71 (2) 0.7071 (3) 8.944 (4) 14.142 (5) 0.2236

$$\begin{aligned}(1) \sqrt{5000} &= \sqrt{100 \times 50} = 10\sqrt{50} \\ &= 10 \times 7.071 \\ &= 70.71\end{aligned}$$

$$(2) \sqrt{0.5} = \sqrt{\frac{50}{100}} = \frac{\sqrt{50}}{10}$$

$$= 7.071 \div 10$$

$$= 0.7071$$

$$\begin{aligned}(3) \sqrt{80} &= \sqrt{16 \times 5} = 4\sqrt{5} \\ &= 4 \times 2.236 \\ &= 8.944\end{aligned}$$

$$\begin{aligned}(4) \sqrt{200} &= \sqrt{4 \times 50} = 2\sqrt{50} \\ &= 2 \times 7.071 \\ &= 14.142\end{aligned}$$

$$\begin{aligned}(5) \frac{1}{\sqrt{20}} &= \frac{1}{2\sqrt{5}} = \frac{1 \times \sqrt{5}}{2\sqrt{5} \times \sqrt{5}} = \frac{\sqrt{5}}{10} \\ &= 2.236 \div 10 \\ &= 0.2236\end{aligned}$$