

1 解答 (1) $\sqrt{35}$ (2) 9 (3) $\sqrt{5}$ (4) 4

$$(1) \sqrt{5} \times \sqrt{7} = \sqrt{5 \times 7} \\ = \sqrt{35}$$

$$(2) \sqrt{3} \times \sqrt{27} = \sqrt{3 \times 27} \\ = \sqrt{81} \\ = 9$$

$$(3) \sqrt{15} \div \sqrt{3} = \frac{\sqrt{15}}{\sqrt{3}} \\ = \sqrt{\frac{15}{3}} \\ = \sqrt{5}$$

$$(4) \sqrt{80} \div \sqrt{5} = \frac{\sqrt{80}}{\sqrt{5}} \\ = \sqrt{\frac{80}{5}} \\ = \sqrt{16} \\ = 4$$

2 解答 (1) $7\sqrt{3}$ (2) $6\sqrt{5}$ (3) $12\sqrt{7}$ (4) $18\sqrt{3}$ (5) $30\sqrt{2}$

$$(1) \sqrt{7} \times \sqrt{21} = \sqrt{7 \times 21} \\ = \sqrt{7 \times 3 \times 7} \\ = \sqrt{7^2 \times 3} \\ = 7\sqrt{3}$$

$$(2) \sqrt{6} \times \sqrt{30} = \sqrt{6 \times 30} \\ = \sqrt{6 \times 5 \times 6} \\ = \sqrt{6^2 \times 5} \\ = 6\sqrt{5}$$

$$(3) \sqrt{24} \times \sqrt{42} = \sqrt{24 \times 42} \\ = \sqrt{2^3 \times 3 \times 2 \times 3 \times 7} \\ = \sqrt{(4 \times 3)^2 \times 7} \\ = 12\sqrt{7}$$

$$(4) \sqrt{18} \times \sqrt{54} = \sqrt{18 \times 54} \\ = \sqrt{2 \times 3^2 \times 2 \times 3^3}$$

$$= \sqrt{(2 \times 9)^2 \times 3} \\ = 18\sqrt{3}$$

$$(5) 2\sqrt{5} \times 3\sqrt{10} = 2 \times 3 \times \sqrt{5} \times \sqrt{10} \\ = 6\sqrt{50} \\ = 6 \times 5\sqrt{2} \\ = 30\sqrt{2}$$

3 解答 (1) $24\sqrt{3}$ (2) $-3\sqrt{6}$ (3) $\frac{3\sqrt{5}}{5}$

$$(1) 2\sqrt{8} \times 3\sqrt{6} = 2 \times 3 \times \sqrt{8} \times \sqrt{6} \\ = 6\sqrt{48} \\ = 6 \times 4\sqrt{3} \\ = 24\sqrt{3}$$

$$(2) \sqrt{18} \times \sqrt{15} \div (-\sqrt{5}) = -\sqrt{\frac{18 \times 15}{5}} \\ = -\sqrt{18 \times 3} \\ = -\sqrt{3 \times 3 \times 6} \\ = -3\sqrt{6}$$

$$(3) \sqrt{3} \div \sqrt{10} \times \sqrt{6} = \sqrt{\frac{3 \times 6}{10}} \\ = \sqrt{\frac{9}{5}} \\ = \frac{3}{\sqrt{5}} \\ = \frac{3 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} \\ = \frac{3\sqrt{5}}{5}$$