

平方根の計算① 解答と解説

1 解答 (1) $\sqrt{6}$ (2) $\sqrt{33}$ (3) $\sqrt{65}$ (4) 4 (5) $-\sqrt{14}$

(6) $\sqrt{51}$ (7) $\sqrt{15}$ (8) $\sqrt{2}$ (9) $\sqrt{14}$

(1) $\sqrt{2} \times \sqrt{3} = \sqrt{2 \times 3} = \sqrt{6}$

(2) $\sqrt{3} \times \sqrt{11} = \sqrt{3 \times 11} = \sqrt{33}$

(3) $\sqrt{5} \times \sqrt{13} = \sqrt{5 \times 13} = \sqrt{65}$

(4) $\sqrt{8} \times \sqrt{2} = \sqrt{16} = \sqrt{4^2} = 4$

(5) $\sqrt{2} \times (-\sqrt{7}) = -\sqrt{2 \times 7} = -\sqrt{14}$

(6) $(-\sqrt{17}) \times (-\sqrt{3}) = \sqrt{17 \times 3} = \sqrt{51}$

(7) $\sqrt{21} \times \sqrt{\frac{5}{7}} = \sqrt{21 \times \frac{5}{7}} = \sqrt{15}$

(8) $\sqrt{\frac{5}{12}} \times \sqrt{\frac{24}{5}} = \sqrt{\frac{5}{12} \times \frac{24}{5}} = \sqrt{2}$

(9) $\sqrt{28} \times \sqrt{0.5} = \sqrt{28 \times 0.5} = \sqrt{14}$

2 解答 (1) $\sqrt{2}$ (2) $\sqrt{5}$ (3) $\sqrt{15}$ (4) 3 (5) $-\sqrt{5}$ (6) 2

(1) $\sqrt{24} \div \sqrt{12} = \sqrt{\frac{24}{12}} = \sqrt{2}$

(2) $\sqrt{65} \div \sqrt{13} = \sqrt{\frac{65}{13}} = \sqrt{5}$

(3) $\sqrt{225} \div \sqrt{15} = \sqrt{\frac{225}{15}} = \sqrt{15}$

(4) $\sqrt{18} \div \sqrt{2} = \sqrt{\frac{18}{2}} = \sqrt{9} = 3$

(5) $(-\sqrt{35}) \div \sqrt{7} = -\sqrt{\frac{35}{7}} = -\sqrt{5}$

(6) $(-\sqrt{52}) \div (-\sqrt{13}) = \sqrt{\frac{52}{13}} = \sqrt{4} = 2$

3 解答 (1) $\sqrt{14}$ (2) $\sqrt{6}$ (3) $\sqrt{15}$ (4) $-\sqrt{2}$ (5) $\sqrt{39}$ (6) $-\sqrt{22}$

(1) $\sqrt{7} \times \sqrt{6} \div \sqrt{3} = \sqrt{\frac{7 \times 6}{3}} = \sqrt{14}$

(2) $\sqrt{15} \times \sqrt{8} \div \sqrt{20} = \sqrt{\frac{15 \times 8}{20}} = \sqrt{6}$

(3) $\sqrt{18} \div \sqrt{12} \times \sqrt{10} = \sqrt{\frac{18 \times 10}{12}} = \sqrt{15}$

(4) $\sqrt{30} \times \sqrt{\frac{2}{5}} \div (-\sqrt{6}) = -\sqrt{30 \times \frac{2}{5} \times \frac{1}{6}} = -\sqrt{2}$

(5) $(-\sqrt{45}) \div \sqrt{3} \times (-\sqrt{\frac{13}{5}}) = \sqrt{45 \times \frac{1}{3} \times \frac{13}{5}} = \sqrt{39}$

(6) $\sqrt{\frac{44}{12}} \times (-\sqrt{42}) \div \sqrt{7} = -\sqrt{\frac{44}{12} \times 42 \times \frac{1}{7}} = -\sqrt{22}$