

平方根① (解答と解説)

1 解答 ④

- ① 16の平方根は ± 4
 ② $\sqrt{(-3)^2} = 3$
 ③ $\sqrt{0.4}$ は0.2に等しくない。
 ④ $(-\sqrt{5})^2 = 5$
 よって、正しいものは ④

2 解答 (1) $\sqrt{35}$ (2) $\sqrt{5}$ (3) $30\sqrt{2}$ (4) $7\sqrt{3}$ (5) $\sqrt{3}$ (6) $6\sqrt{2}$

- (1) $\sqrt{5} \times \sqrt{7} = \sqrt{5 \times 7}$
 $= \sqrt{35}$
 (2) $\sqrt{15} \div \sqrt{3} = \frac{\sqrt{15}}{\sqrt{3}}$
 $= \sqrt{\frac{15}{3}}$
 $= \sqrt{5}$
 (3) $2\sqrt{5} \times 3\sqrt{10} = 2 \times 3 \times \sqrt{5} \times \sqrt{10}$
 $= 6\sqrt{50}$
 $= 6 \times 5\sqrt{2}$
 $= 30\sqrt{2}$
 (4) $2\sqrt{3} + 5\sqrt{3} = (2+5)\sqrt{3}$
 $= 7\sqrt{3}$
 (5) $\sqrt{27} - \sqrt{12} = 3\sqrt{3} - 2\sqrt{3}$
 $= \sqrt{3}$
 (6) $\sqrt{32} + \frac{4}{\sqrt{2}} = 4\sqrt{2} + \frac{4 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}}$
 $= 4\sqrt{2} + \frac{4\sqrt{2}}{2}$
 $= 4\sqrt{2} + 2\sqrt{2}$
 $= 6\sqrt{2}$

3 解答 (1) 22.36 (2) 0.2236

- (1) $\sqrt{500} = 10\sqrt{5}$
 $= 10 \times 2.236$
 $= 22.36$
 (2) $\sqrt{0.05} = \sqrt{\frac{5}{100}}$
 $= \frac{\sqrt{5}}{10}$
 $= 2.236 \div 10$
 $= 0.2236$