

問題

問題 1. 次の計算をなさい。

(1) $\sqrt{2} \times \sqrt{3}$ (2) $\sqrt{3} \times \sqrt{7}$ (3) $\sqrt{2} \times \sqrt{8}$ (4) $\sqrt{50} \times \sqrt{2}$

(5) $(-\sqrt{5}) \times \sqrt{7}$ (6) $(-\sqrt{12}) \times (-\sqrt{3})$ (7) $\sqrt{10} \div \sqrt{2}$ (8) $\sqrt{33} \div \sqrt{3}$

(9) $\sqrt{18} \div \sqrt{2}$ (10) $\sqrt{75} \div \sqrt{3}$ (11) $(-\sqrt{15}) \div (-\sqrt{5})$

(12) $(-\sqrt{63}) \div \sqrt{7}$ (13) $\sqrt{18} \div \sqrt{15}$ (14) $\sqrt{12} \div (-\sqrt{18})$

問題 2. 次の数を \sqrt{a} の形になさい。

(1) $3\sqrt{2}$ (2) $2\sqrt{5}$ (3) $\frac{\sqrt{12}}{2}$ (4) $\frac{\sqrt{27}}{3}$

問題 3. 次の数の \sqrt{a} の中をできるだけ簡単な数になさい。

(1) $\sqrt{12}$ (2) $\sqrt{27}$ (3) $\sqrt{\frac{3}{16}}$ (4) $\sqrt{\frac{2}{25}}$

(5) $\sqrt{200}$ (6) $\sqrt{700}$ (7) $\sqrt{0.11}$ (8) $\sqrt{0.05}$

(9) $\sqrt{180}$ (10) $\sqrt{450}$ (11) $\sqrt{360}$ (12) $\sqrt{756}$

練習

練習 1. 次の計算をなさい。

(1) $\sqrt{2} \times \sqrt{5}$ (2) $\sqrt{3} \times \sqrt{5}$ (3) $\sqrt{3} \times \sqrt{12}$ (4) $\sqrt{28} \times \sqrt{7}$

(5) $(-\sqrt{7}) \times (-\sqrt{2})$ (6) $\sqrt{20} \times (-\sqrt{5})$ (7) $\sqrt{14} \div \sqrt{2}$ (8) $\sqrt{42} \div \sqrt{3}$

(9) $\sqrt{20} \div \sqrt{5}$ (10) $\sqrt{72} \div \sqrt{2}$ (11) $(-\sqrt{18}) \div (-\sqrt{3})$

(12) $\sqrt{32} \div (-\sqrt{8})$ (13) $\sqrt{10} \div \sqrt{22}$ (14) $(-\sqrt{21}) \div (-\sqrt{15})$

練習 2. 次の数を \sqrt{a} の形に直しなさい。

(1) $2\sqrt{3}$ (2) $4\sqrt{2}$ (3) $\frac{\sqrt{45}}{3}$ (4) $\frac{\sqrt{75}}{5}$

練習 3. 次の数の \sqrt{a} の中をできるだけ簡単な数に直しなさい。

(1) $\sqrt{24}$ (2) $\sqrt{75}$ (3) $\sqrt{\frac{6}{49}}$ (4) $\sqrt{\frac{5}{36}}$

(5) $\sqrt{500}$ (6) $\sqrt{600}$ (7) $\sqrt{0.07}$ (8) $\sqrt{0.03}$

(9) $\sqrt{396}$ (10) $\sqrt{108}$ (11) $\sqrt{504}$ (12) $\sqrt{216}$

解答

問題 1.

- (1) $\sqrt{6}$ (2) $\sqrt{21}$ (3) 4 (4) 10 (5) $-\sqrt{35}$ (6) 6 (7) $\sqrt{5}$
(8) $\sqrt{11}$ (9) 3 (10) 5 (11) $\sqrt{3}$ (12) -3 (13) $\sqrt{\frac{6}{5}}$ (14) $-\sqrt{\frac{2}{3}}$

問題 2.

- (1) $\sqrt{18}$ (2) $\sqrt{20}$ (3) $\sqrt{3}$ (4) $\sqrt{3}$

問題 3.

- (1) $2\sqrt{3}$ (2) $3\sqrt{3}$ (3) $\frac{\sqrt{3}}{4}$ (4) $\frac{\sqrt{2}}{5}$ (5) $10\sqrt{2}$ (6) $10\sqrt{7}$
(7) $\frac{\sqrt{11}}{10}$ (8) $\frac{\sqrt{5}}{10}$ (9) $6\sqrt{5}$ (10) $15\sqrt{2}$ (11) $6\sqrt{10}$ (12) $6\sqrt{21}$

練習 1.

- (1) $\sqrt{10}$ (2) $\sqrt{15}$ (3) 6 (4) 14 (5) $\sqrt{14}$ (6) -10 (7) $\sqrt{7}$
(8) $\sqrt{14}$ (9) 2 (10) 6 (11) $\sqrt{6}$ (12) -2 (13) $\sqrt{\frac{5}{11}}$ (14) $\sqrt{\frac{7}{5}}$

練習 2.

- (1) $\sqrt{12}$ (2) $\sqrt{32}$ (3) $\sqrt{5}$ (4) $\sqrt{3}$

練習 3.

- (1) $2\sqrt{6}$ (2) $5\sqrt{3}$ (3) $\frac{\sqrt{6}}{7}$ (4) $\frac{\sqrt{5}}{6}$ (5) $10\sqrt{5}$ (6) $10\sqrt{6}$
(7) $\frac{\sqrt{7}}{10}$ (8) $\frac{\sqrt{3}}{10}$ (9) $6\sqrt{11}$ (10) $6\sqrt{3}$ (11) $6\sqrt{14}$ (12) $6\sqrt{6}$