氏名　（　　　　　　　　　　　　）　　　点数　＿＿＿＿＿＿

(1) $3\sqrt{3} \times (-2\sqrt{2})$

$= \underline{-6\sqrt{6}}$

(2) $\sqrt{12} \times \sqrt{18}$

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

$= \underline{6\sqrt{6}}$

(3) $\sqrt{24} \div \sqrt{2}$

$= \sqrt{12}$

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

(4) $\sqrt{3} \div \sqrt{5}$

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

$= \dfrac{\sqrt{15}}{5}$

(5) $\sqrt{24} \times \sqrt{56}$

$= \sqrt{3} \times \sqrt{8} \times \sqrt{8} \times \sqrt{7}$　　$\sqrt{24} = \sqrt{3} \times \sqrt{8}, \sqrt{56} = \sqrt{8} \times \sqrt{7}$

$= 8 \times \sqrt{3} \times \sqrt{7}$　　$\sqrt{8} \times \sqrt{8} = 8$

$= \underline{8\sqrt{21}}$

(6) $\sqrt{60} \times \sqrt{6}$

$= \sqrt{10} \times \sqrt{6} \times \sqrt{6}$　　$\sqrt{60} = \sqrt{10} \times \sqrt{6}$

$= 6 \times \sqrt{10}$　　$\sqrt{6} \times \sqrt{6} = 6$

$= \underline{6\sqrt{10}}$

(7) $\sqrt{30} \div \sqrt{5}$

$= \sqrt{30 \div 5}$

$= \underline{\sqrt{6}}$

(8) $3 \div \sqrt{15}$

$= \dfrac{3}{\sqrt{15}}$

$= \dfrac{3\sqrt{15}}{15}$

$= \dfrac{\sqrt{15}}{5}$

(9) $\sqrt{60} \div \sqrt{3} \div \sqrt{8}$

$= \dfrac{\overset{20}{\cancel{\sqrt{60}}}^{5}}{\underset{1}{\cancel{\sqrt{3}}} \times \underset{2}{\sqrt{8}}}$

$= \dfrac{\sqrt{5}}{\sqrt{2}}$

$= \dfrac{\sqrt{10}}{2}$

(10) $4\sqrt{6} \times 5\sqrt{2} \div 2\sqrt{3}$

$= \dfrac{\overset{2}{4}\overset{2}{\cancel{\sqrt{6}}} \times 5\sqrt{2}}{\underset{1}{2}\underset{1}{\cancel{\sqrt{3}}}}$

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

$= 2 \times 5 \times 2$

$= \underline{20}$

数学研究所