

問題番号 09M0206_02 レベル ☆☆☆	うんな進学塾 中3 第2章 平方根 ⑥平方根の計算（有理化） No.2 解答	授業動画QR 
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1. 次の数の分母を有理化しなさい。

$$\begin{array}{lll}
 (1) \frac{5}{\sqrt{3}} = \frac{5 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{5\sqrt{3}}{3} & (2) \frac{\sqrt{3}}{\sqrt{6}} = \frac{\sqrt{3} \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}} = \frac{3\sqrt{2}}{6} & (3) \frac{2}{3\sqrt{2}} = \frac{2 \times \sqrt{2}}{3\sqrt{2} \times \sqrt{2}} = \frac{2\sqrt{2}}{6} \\
 (4) \frac{\sqrt{10}}{2\sqrt{7}} = \frac{\sqrt{10} \times \sqrt{7}}{2\sqrt{7} \times \sqrt{7}} = \frac{\sqrt{70}}{14} & (5) \frac{6}{\sqrt{8}} = \frac{6 \times \sqrt{2}}{2\sqrt{2} \times \sqrt{2}} = \frac{6\sqrt{2}}{4} & (6) \frac{\sqrt{18}}{\sqrt{12}} = \frac{3\sqrt{2} \times \sqrt{3}}{2\sqrt{3} \times \sqrt{3}} = \frac{3\sqrt{6}}{6}
 \end{array}$$

(1) $\frac{5\sqrt{3}}{3}$	(2) $\frac{\sqrt{2}}{2}$	(3) $\frac{\sqrt{2}}{3}$
(4) $\frac{\sqrt{70}}{14}$	(5) $\frac{3\sqrt{2}}{2}$	(6) $\frac{\sqrt{6}}{2}$

2. 次の計算をしなさい。

$$\begin{array}{lll}
 (1) \sqrt{8} \times \sqrt{18} & (2) \sqrt{45} \times \sqrt{5} & (3) \sqrt{3} \times \sqrt{27} \\
 = 2\sqrt{2} \times 3\sqrt{2} & = 3\sqrt{5} \times \sqrt{5} & = \sqrt{3} \times 3\sqrt{3} = 9 \\
 = 12 & = 15 & \\
 \\
 (4) 3\sqrt{2} \times 2\sqrt{5} & (5) \sqrt{50} \times (-3\sqrt{2}) & (6) (-\sqrt{75}) \times 2\sqrt{3} \\
 = 6\sqrt{10} & = 5\sqrt{2} \times (-3\sqrt{2}) & = (-5\sqrt{3}) \times 2\sqrt{3} \\
 & = -15 \times 2 = -30 & = -10 \times 3 = -30 \\
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 (7) \sqrt{2} \div \sqrt{7} & (8) 6\sqrt{3} \div 3\sqrt{6} & (9) \sqrt{48} \div (-\sqrt{3}) \\
 = \frac{\sqrt{2}}{\sqrt{7}} = \frac{\sqrt{2} \times \sqrt{7}}{\sqrt{7} \times \sqrt{7}} = \frac{\sqrt{14}}{7} & = \frac{6\sqrt{3}}{3\sqrt{6}} = \frac{2\sqrt{3} \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}} = \frac{6\sqrt{2}}{6} & = -\frac{4\sqrt{3}}{\sqrt{3}} = -4
 \end{array}$$

(1) 12	(2) 15	(3) 9
(4) $6\sqrt{10}$	(5) -30	(6) -30
(7) $\frac{\sqrt{14}}{7}$	(8) $\sqrt{2}$	(9) -4