

# 平方根・変形③ 1

3年 組 番・氏名

◆次の数の分母を有理化せよ。

$$\begin{aligned} \textcircled{1} \quad & \frac{1}{\sqrt{2}} \\ & = \frac{1 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} = \frac{\sqrt{2}}{2} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \frac{\sqrt{3}}{\sqrt{7}} \\ & = \frac{\sqrt{3} \times \sqrt{7}}{\sqrt{7} \times \sqrt{7}} = \frac{\sqrt{21}}{7} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & \frac{2}{\sqrt{3}} \\ & = \frac{2 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{2\sqrt{3}}{3} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \frac{\sqrt{2}}{\sqrt{5}} \\ & = \frac{\sqrt{2} \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} = \frac{\sqrt{10}}{5} \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & \frac{18}{\sqrt{6}} \\ & = \frac{18 \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}} = \frac{18\sqrt{6}}{6} = 3\sqrt{6} \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & \frac{14}{\sqrt{7}} \\ & = \frac{14 \times \sqrt{7}}{\sqrt{7} \times \sqrt{7}} = \frac{14\sqrt{7}}{7} = 2\sqrt{7} \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad & \frac{30}{\sqrt{3}} \\ & = \frac{30 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{30\sqrt{3}}{3} = 10\sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad & \frac{5}{\sqrt{10}} \\ & = \frac{5 \times \sqrt{10}}{\sqrt{10} \times \sqrt{10}} = \frac{5\sqrt{10}}{10} = \frac{\sqrt{10}}{2} \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad & \frac{12}{\sqrt{8}} \\ & = \frac{12 \times \sqrt{2}}{2\sqrt{2} \times \sqrt{2}} = \frac{12\sqrt{2}}{4} = 3\sqrt{2} \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad & \frac{24}{\sqrt{18}} \\ & = \frac{24 \times \sqrt{2}}{3\sqrt{2} \times \sqrt{2}} = \frac{24\sqrt{2}}{6} = 4\sqrt{2} \end{aligned}$$

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$$\begin{aligned} \textcircled{1} \quad & \frac{1}{\sqrt{3}} \\ & = \frac{1 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{\sqrt{3}}{3} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad & \frac{\sqrt{2}}{\sqrt{5}} \\ & = \frac{\sqrt{2} \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} = \frac{\sqrt{10}}{5} \end{aligned}$$

$$\begin{aligned} \textcircled{3} \quad & \frac{3}{\sqrt{2}} \\ & = \frac{3 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} = \frac{3\sqrt{2}}{2} \end{aligned}$$

$$\begin{aligned} \textcircled{4} \quad & \frac{\sqrt{5}}{\sqrt{6}} \\ & = \frac{\sqrt{5} \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}} = \frac{\sqrt{30}}{6} \end{aligned}$$

$$\begin{aligned} \textcircled{5} \quad & \frac{20}{\sqrt{5}} \\ & = \frac{20 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} = \frac{20\sqrt{5}}{5} = 4\sqrt{5} \end{aligned}$$

$$\begin{aligned} \textcircled{6} \quad & \frac{12}{\sqrt{3}} \\ & = \frac{12 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{12\sqrt{3}}{3} = 4\sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{7} \quad & \frac{21}{\sqrt{7}} \\ & = \frac{21 \times \sqrt{7}}{\sqrt{7} \times \sqrt{7}} = \frac{21\sqrt{7}}{7} = 3\sqrt{7} \end{aligned}$$

$$\begin{aligned} \textcircled{8} \quad & \frac{2}{\sqrt{6}} \\ & = \frac{2 \times \sqrt{6}}{\sqrt{6} \times \sqrt{6}} = \frac{2\sqrt{6}}{6} = \frac{\sqrt{6}}{3} \end{aligned}$$

$$\begin{aligned} \textcircled{9} \quad & \frac{18}{\sqrt{12}} \\ & = \frac{18 \times \sqrt{3}}{2\sqrt{3} \times \sqrt{3}} = \frac{18\sqrt{3}}{6} = 3\sqrt{3} \end{aligned}$$

$$\begin{aligned} \textcircled{10} \quad & \frac{12}{\sqrt{18}} \\ & = \frac{12 \times \sqrt{2}}{3\sqrt{2} \times \sqrt{2}} = \frac{12\sqrt{2}}{6} = 2\sqrt{2} \end{aligned}$$

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