

## 平方根 分母の有理化 基本

NO.1

名前

/ 点

1 分母を有理化します。( )にあてはまる数値を答えなさい。

$$\textcircled{1} \quad \frac{2}{\sqrt{3}} = \frac{2 \times \sqrt{(\quad)}}{\sqrt{3} \times \sqrt{(\quad)}} = \frac{2\sqrt{(\quad)}}{(\quad)}$$

$$\textcircled{2} \quad \frac{\sqrt{2}}{\sqrt{5}} = \frac{\sqrt{2} \times \sqrt{(\quad)}}{\sqrt{5} \times \sqrt{(\quad)}} = \frac{\sqrt{(\quad)}}{(\quad)}$$

$$\textcircled{3} \quad \frac{7}{2\sqrt{7}} = \frac{7 \times \sqrt{(\quad)}}{2\sqrt{7} \times \sqrt{(\quad)}} = \frac{7\sqrt{(\quad)}}{(\quad)} = \frac{\sqrt{(\quad)}}{(\quad)}$$

$$\textcircled{4} \quad \frac{2\sqrt{3}}{3\sqrt{2}} = \frac{2\sqrt{3} \times \sqrt{(\quad)}}{3\sqrt{2} \times \sqrt{(\quad)}} = \frac{2\sqrt{(\quad)}}{(\quad)} = \frac{\sqrt{(\quad)}}{(\quad)}$$

$$\textcircled{5} \quad \frac{2}{\sqrt{8}} = \frac{2}{2\sqrt{(\quad)}} = \frac{2 \times \sqrt{(\quad)}}{2\sqrt{(\quad)} \times \sqrt{(\quad)}} = \frac{2\sqrt{(\quad)}}{(\quad)} = \frac{\sqrt{(\quad)}}{(\quad)}$$

2 次の数を、分母が $\sqrt{\quad}$ をふくまない形に変形しなさい。

$$\textcircled{1} \quad \frac{1}{\sqrt{2}}$$

$$\textcircled{2} \quad \frac{1}{\sqrt{5}}$$

$$\textcircled{3} \quad \frac{5}{\sqrt{3}}$$

$$\textcircled{4} \quad \frac{\sqrt{2}}{\sqrt{3}}$$

## 解答

1

$$\textcircled{1} \quad \frac{2}{\sqrt{3}} = \frac{2 \times \sqrt{(3)}}{\sqrt{3} \times \sqrt{(3)}} = \frac{2\sqrt{(3)}}{3}$$

$$\textcircled{2} \quad \frac{\sqrt{2}}{\sqrt{5}} = \frac{\sqrt{2} \times \sqrt{(5)}}{\sqrt{5} \times \sqrt{(5)}} = \frac{\sqrt{(10)}}{(5)}$$

$$\textcircled{3} \quad \frac{7}{2\sqrt{7}} = \frac{7 \times \sqrt{(7)}}{2\sqrt{7} \times \sqrt{(7)}} = \frac{7\sqrt{(7)}}{(14)} = \frac{\sqrt{(7)}}{(2)}$$

$$\textcircled{4} \quad \frac{2\sqrt{3}}{3\sqrt{2}} = \frac{2\sqrt{3} \times \sqrt{(2)}}{3\sqrt{2} \times \sqrt{(2)}} = \frac{2\sqrt{(6)}}{(6)} = \frac{\sqrt{(6)}}{(3)}$$

$$\textcircled{5} \quad \frac{2}{\sqrt{8}} = \frac{2}{2\sqrt{(2)}} = \frac{2 \times \sqrt{(2)}}{2\sqrt{(2)} \times \sqrt{(2)}} = \frac{2\sqrt{(2)}}{(4)} = \frac{\sqrt{(2)}}{(2)}$$

2

$$\textcircled{1} \quad \frac{1}{\sqrt{2}} = \frac{1 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\textcircled{2} \quad \frac{1}{\sqrt{5}} = \frac{1 \times \sqrt{5}}{\sqrt{5} \times \sqrt{5}} = \frac{\sqrt{5}}{5}$$

$$\textcircled{3} \quad \frac{5}{\sqrt{3}} = \frac{5 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{5\sqrt{3}}{3}$$

$$\textcircled{4} \quad \frac{\sqrt{2}}{\sqrt{3}} = \frac{\sqrt{2} \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = \frac{\sqrt{6}}{3}$$