

分数のたし算・ひき算 (基本)

分数のたし算・ひき算は分母がそろっている

とできて、結果は約分します

例1 次の分数の計算をなさい

$$\textcircled{1} \frac{2}{5} + \frac{4}{5} = \frac{2+4}{5} = \frac{6}{5}$$

$$\textcircled{2} \frac{8}{7} - \frac{3}{7} = \frac{8-3}{7} = \frac{5}{7}$$

$$\textcircled{3} \frac{5}{3} - \frac{2}{3} = \frac{5-2}{3} = \frac{3}{3} = 1 \quad \leftarrow \text{約分}$$

$$\textcircled{4} \frac{2}{9} + \frac{1}{9} = \frac{2+1}{9} = \frac{3}{9} = \frac{1}{3} \quad \leftarrow \text{約分}$$

練習1 次の計算をなさい。

$$\textcircled{1} \frac{7}{12} - \frac{1}{12} =$$

$$\textcircled{2} \frac{5}{6} + \frac{1}{6} =$$

$$\textcircled{3} \frac{2}{12} - \frac{7}{12} =$$

POINT **ここで学ぶこと** 分数のたし算、ひき算は分母がそろっていないとできません。分母をそろえることを通分といいます。

例2 次の分数の計算をなさい。

$$\textcircled{1} \frac{1}{6} + \frac{2}{3} = \frac{1}{6} + \frac{2 \times 2}{3 \times 2} = \frac{1}{6} + \frac{4}{6} = \frac{1+4}{6} = \frac{5}{6}$$

$$\textcircled{2} 1 - \frac{5}{8} = \frac{8}{8} - \frac{5}{8} = \frac{8-5}{8} = \frac{3}{8}$$

$$\textcircled{3} \frac{5}{6} - \frac{1}{3} = \frac{5}{6} - \frac{1 \times 2}{3 \times 2} = \frac{5-2}{6} = \frac{3}{6} = \frac{1}{2}$$

← 約分

$$\textcircled{4} \frac{7}{12} + \frac{8}{3} = \frac{7}{12} + \frac{32}{12} = \frac{7+32}{12} = \frac{39}{12} = \frac{13}{4} \quad \leftarrow \text{約分}$$

練習2 次の計算をなさい。

$$\textcircled{1} \frac{3}{8} + \frac{1}{4} =$$

$$\textcircled{2} \frac{17}{6} - \frac{4}{3} =$$

$$\textcircled{3} 2 - \frac{11}{4} =$$

$$\textcircled{4} \frac{23}{24} - \frac{1}{12} =$$

$$\textcircled{5} 7 - \frac{8}{7} =$$

通分は、分母の最小公倍数を求めます。

例3 通分をして、次の分数の計算をなさい。

$$\textcircled{1} \frac{4}{5} - \frac{2}{3} = \frac{4 \times 3}{5 \times 3} - \frac{2 \times 5}{3 \times 5} = \frac{12}{15} - \frac{10}{15} = \frac{2}{15}$$

$$\textcircled{2} \frac{5}{12} + \frac{5}{8} = \frac{5 \times 2}{12 \times 2} + \frac{5 \times 3}{8 \times 3} = \frac{10}{24} + \frac{15}{24} = \frac{25}{24}$$

練習3 次の計算をなさい。

$$\textcircled{1} \frac{7}{8} + \frac{5}{6} =$$

$$\textcircled{2} \frac{4}{9} - \frac{7}{12} =$$

$$\textcircled{3} \frac{5}{6} - \frac{2}{15} =$$

$$\textcircled{4} \frac{4}{5} + \frac{2}{3} =$$

$$\textcircled{5} \frac{5}{12} + \frac{5}{8} =$$

$$\textcircled{6} \frac{7}{8} - \frac{5}{6} =$$

$$\textcircled{7} \frac{8}{9} - \frac{7}{12} =$$

$$\textcircled{8} \frac{11}{5} - 2 + \frac{1}{3} =$$

**** 解答 ****

練習1 つぎ けいさん 次の計算をなさい。

$$\textcircled{1} \frac{7}{12} - \frac{1}{12} = \frac{7-1}{12} = \frac{6}{12} = \frac{1}{2}$$

$$\textcircled{2} \frac{5}{6} + \frac{1}{6} = \frac{5+1}{6} = \frac{6}{6} = 1$$

$$\textcircled{3} \frac{2}{12} - \frac{7}{12} = \frac{2-7}{12} = \frac{-5}{12} = -\frac{5}{12}$$

練習2 つぎ けいさん 次の計算をなさい。

$$\textcircled{1} \frac{3}{8} + \frac{1}{4} = \frac{3}{8} + \frac{2}{8} = \frac{3+2}{8} = \frac{5}{8}$$

$$\textcircled{2} \frac{17}{6} - \frac{4}{3} = \frac{17}{6} - \frac{8}{6} = \frac{17-8}{6} = \frac{9}{6} = \frac{3}{2}$$

$$\textcircled{3} 2 - \frac{11}{4} = \frac{8}{4} - \frac{11}{4} = \frac{8-11}{4} = \frac{-3}{4} = -\frac{3}{4}$$

$$\textcircled{4} \frac{23}{24} - \frac{1}{12} = \frac{23}{24} - \frac{2}{24} = \frac{21}{24} = \frac{7}{8}$$

$$\textcircled{5} 7 - \frac{8}{7} = \frac{49}{7} - \frac{8}{7} = \frac{49-8}{7} = \frac{41}{7}$$

練習3 つぎ けいさん 次の計算をなさい。

$$\textcircled{1} \frac{7}{8} + \frac{5}{6} = \frac{21}{24} + \frac{20}{24} = \frac{41}{24}$$

$$\textcircled{2} \frac{4}{9} - \frac{7}{12} = \frac{16}{36} - \frac{21}{36} = \frac{-5}{36} = -\frac{5}{36}$$

$$\textcircled{3} \frac{5}{6} - \frac{2}{15} = \frac{25}{30} - \frac{4}{30} = \frac{21}{30} = \frac{7}{10}$$

$$\textcircled{4} \frac{4}{5} + \frac{2}{3} = \frac{12}{15} + \frac{10}{15} = \frac{22}{15}$$

$$\textcircled{5} \frac{5}{12} + \frac{5}{8} = \frac{10}{24} + \frac{15}{24} = \frac{25}{24}$$

$$\textcircled{6} \frac{7}{8} - \frac{5}{6} = \frac{21}{24} - \frac{20}{24} = \frac{1}{24}$$

$$\textcircled{7} \frac{8}{9} - \frac{7}{12} = \frac{32}{36} - \frac{21}{36} = \frac{11}{36}$$

$$\textcircled{8} \frac{11}{5} - 2 + \frac{1}{3} = \frac{33}{15} - \frac{30}{15} + \frac{5}{15} = \frac{33-30+5}{15} = \frac{8}{15}$$