

جمع و تفریق اعداد مخلوط

برای جمع و تفریق اعداد مخلوط مانند جمع و تفریق اعداد مرکب عمل می‌کنیم، یعنی ابتدا عملیات را برای قسمت کسری به طور جداگانه و برای قسمت واحد کامل نیز به طور جداگانه انجام می‌دهیم و سپس حاصل عملیات را با هم ترکیب می‌کنیم.

جمع اعداد مخلوط

حالت اول:

$$1 \frac{1}{2} + 3 = (1+3) + \left(\frac{1}{2} + 0\right) = 4 + \frac{1}{2} = 4 \frac{1}{2}$$

مثال / $5 \frac{7}{8} + 4 = 9 \frac{7}{8}$

مثال / $5 \frac{7}{9} + \frac{1}{9} = 5 \frac{8}{9}$

حالت دوم:

$$4 \frac{1}{3} + 3 \frac{1}{3} = (\cancel{4+3}^7) + \left(\frac{1}{3} + \frac{1}{3}\right) = 7 + \frac{2}{3} = 7 \frac{2}{3}$$

مثال / $6 \frac{3}{8} + 5 \frac{4}{8} = (6+5) + \left(\frac{3}{8} + \frac{4}{8}\right) = 11 + \frac{7}{8} = 11 \frac{7}{8}$

مثال / $5 \frac{2}{11} + 7 \frac{7}{11} = (5+7) + \left(\frac{2}{11} + \frac{7}{11}\right) = 12 + \frac{9}{11} = 12 \frac{9}{11}$

مثال / $4 \frac{1}{3} + 3 \frac{2}{3} = (4+3) + \left(\frac{1}{3} + \frac{2}{3}\right) = 7 + 1 = 8$

$$\omega \frac{V}{9} + 1 \frac{1}{9} = (\cancel{\omega} + 1) + (\frac{V}{\cancel{9}} + \frac{1}{\cancel{9}}) = 9 + \frac{1\omega}{9} = 9 + 1 \frac{9}{9} = 9 + 1 \frac{9}{9} = 10 \frac{9}{9}$$

$$\text{مثال/9} \frac{10}{13} + 3 \frac{\omega}{13} = (9+3) + (\frac{10}{13} + \frac{\omega}{13}) = 9 + \frac{1\omega}{13} = 9 + 1 \frac{13}{13} = 10 \frac{13}{13}$$

$$3 \frac{3}{4} + 1 \frac{V}{19} = (\cancel{3} + 1) + (\frac{\cancel{3} \times 19}{\cancel{4} \times 19} + \frac{V}{19}) = 4 + \frac{19}{19} = 4 + 1 \frac{19}{19} = 5 \frac{19}{19}$$

$$\text{مثال/}\omega \frac{3}{4} + 3 \frac{2}{19} = (\omega+3) + (\frac{3}{4} + \frac{2}{19}) = 1 + \frac{14}{19} = 1 \frac{14}{19}$$

$$\text{مثال/} 3 \frac{\omega}{9} + 2 \frac{12}{39} = (\cancel{3} + 2) + (\frac{\omega \times 12}{9 \times 12} + \frac{12}{39}) = \omega + \frac{12}{39} = \omega + 1 \frac{9}{39} = 9 \frac{9}{39}$$

$$3 \frac{3}{\omega} + \omega \frac{2}{9} = (\cancel{3} + \omega) + (\frac{\cancel{3} \times 9}{\omega \times 9} + \frac{2 \times \omega}{9 \times \omega}) = 1 + \frac{21}{30} = 1 \frac{21}{30}$$

$$2 \frac{4}{\omega} + 9 \frac{1}{3} = (2+9) + (\frac{4 \times 3}{\omega \times 3} + \frac{3 \times \omega}{3 \times \omega}) = 1 + \frac{13}{1\omega} = 1 \frac{13}{1\omega}$$

الف:

$$\omega \frac{2}{3} + 3 \frac{3}{4}$$

$$9 \frac{\omega}{9} + 2 \frac{2}{V} =$$

$$3 \frac{3}{4} + 2 \frac{\omega}{1}$$

$$9 \frac{3}{\omega} + 1 \frac{V}{1} =$$

$$\omega + 3 \frac{3}{13}$$

$$2 \frac{3}{9} + 9 \frac{3}{V} =$$

تفریق اعداد مخلوط

$$5 \frac{3}{13} - 2 = (\cancel{5} - 2) + (\frac{\cancel{3}}{\cancel{13}} - 0) = 3 + \frac{3}{13} = 3 \frac{3}{13}$$

حالت اول:

$$\text{مثال} / 6 \frac{9}{12} - 4 = 2 \frac{9}{12}$$

$$\text{مثال} / 7 \frac{2}{5} - 5 = 2 \frac{2}{5}$$

$$7 \frac{1}{11} - 3 \frac{5}{11} = (\cancel{7} - 3) + (\frac{\cancel{1}}{\cancel{11}} - \frac{5}{11}) = 4 + \frac{3}{11} = 4 \frac{3}{11}$$

حالت دوم:

$$\text{مثال} / 9 \frac{5}{6} - 3 \frac{1}{6} = (9 - 3) + (\frac{5}{6} - \frac{1}{6}) = 6 + \frac{4}{6} = 6 \frac{4}{6}$$

$$9 \frac{5}{9} - 3 \frac{1}{12} = (\cancel{9} - 3) + (\frac{\cancel{5} \times 4}{\cancel{9} \times 4} - \frac{1}{12}) = 6 + \frac{9}{12} = 6 \frac{9}{12}$$

حالت سوم:

$$\text{مثال} / 14 \frac{1}{9} - 4 \frac{6}{18} = (\cancel{14} - 4) + (\frac{\cancel{1} \times 2}{\cancel{9} \times 2} - \frac{6}{18}) = 10 + \frac{10}{18} = 10 \frac{10}{18}$$

$$\text{مثال} / 1 \frac{13}{15} - 2 \frac{3}{5} = (\cancel{1} - 2) + (\frac{13}{15} - \frac{3 \times 3}{5 \times 3}) = 9 + \frac{4}{15} = 9 \frac{4}{15}$$

$$9 \frac{1}{12} - 3 \frac{5}{6} = (\cancel{9} - 3) + (\frac{1}{12} - \frac{5 \times 2}{6 \times 2}) = 6 + (\frac{1}{12} - \frac{10}{12})$$

حالت چهارم:

$$6 + 1 + (\frac{1}{12} - \frac{10}{12})$$

$$6 + (\frac{12}{12} + \frac{1}{12} - \frac{10}{12})$$

$$6 + (\frac{13}{12} - \frac{10}{12}) = 6 + \frac{3}{12} = 6 \frac{3}{12}$$

$$\text{مثال} / 1 \frac{3}{5} - 2 \frac{13}{15}$$

$$\text{مثال} / 4 \frac{3}{4} - 2 \frac{14}{16} =$$

$$5 - 2 \frac{3}{17} = 4 \frac{17}{17} - 2 \frac{3}{17} = 2 \frac{14}{17}$$

حالت پنجم:

$$\text{مثال} / 7 - 4 \frac{2}{15} = 6 \frac{15}{15} - 4 \frac{2}{15} = 2 \frac{13}{15}$$

$$\text{مثال} / 17 - 3 \frac{5}{9} = 16 \frac{9}{9} - 3 \frac{5}{9} = 13 \frac{4}{9}$$

$$\text{مثال} / 4 - 2 \frac{1}{\mu} = 3 \frac{\mu}{\mu} - 2 \frac{1}{\mu} = 1 \frac{\mu}{\mu}$$

حالت ششم:

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

$$5 \frac{1}{2} - 2 \frac{2}{\mu}$$

$$15 \frac{5}{6} - 12 \frac{\mu}{12}$$

$$\mu \frac{\mu}{7} - 2 \frac{1}{2}$$

$$14 - 2 \frac{3}{1}$$

$$19 - 10 \frac{2}{7} =$$

$$1 \frac{1}{4} - 2 \frac{\mu}{4}$$

$$5 \frac{1}{10} - 2 \frac{\mu}{5} =$$