

Adding /Subtracting Fractions

To add or subtract fractions, we must turn them into equivalent fractions with the same denominator.

Then we add/subtract the numerators and keep the same denominator.

Example:

$$\frac{2}{3} + \frac{1}{4} \quad \{\text{LCM} = 12\}$$

$$\frac{2 \times 4}{3 \times 4} + \frac{1 \times 3}{4 \times 3} \quad \{\text{convert the denominators into 12}\}$$

$$\frac{8}{12} + \frac{3}{12} \quad \{\text{Adding the numerators}\}$$

$$\frac{11}{12} \quad \{\text{Keep the same denominator}\}$$

Have in mind!

If we have mixed number, we first turn them into improper fractions and then add or subtract them.

Have in mind!

Any whole number can be turned into a fraction by just using "1" as a denominator

$$5 = \frac{5}{1}, 2 = \frac{2}{1}, 1 = \frac{1}{1}$$

1. Add the following:

a. $\frac{1}{2} + \frac{2}{3} =$

b. $3 + \frac{1}{5} =$

c. $\frac{2}{4} + \frac{1}{3} =$

d. $8\frac{7}{12} + \frac{7}{12} =$

e. $9\frac{3}{4} + 2\frac{2}{4} =$

f. $\frac{5}{6} + \frac{1}{2} + \frac{3}{5} =$

g. $2\frac{1}{3} + 1 + \frac{1}{2} =$

h. $1\frac{1}{3} + 2 + 2\frac{1}{2} =$

i. $2\frac{1}{3} + 4\frac{1}{2} =$

2. Subtract the following:

a. $\frac{1}{2} - \frac{1}{3} =$

b. $3 - \frac{1}{5} =$

c. $2\frac{2}{4} - \frac{2}{3} =$

d. $5\frac{1}{6} - \frac{1}{2} - \frac{1}{3} =$

e. $3 - \frac{1}{2} =$

f. $4\frac{1}{3} - 2\frac{1}{2} =$

g. $2\frac{1}{6} - 1\frac{1}{2} =$

h. $8\frac{3}{20} - 5\frac{4}{20} =$

i. $8\frac{1}{5} - 5\frac{1}{4} =$

j. $5\frac{8}{10} - 2\frac{1}{2} =$

3. Calculate the following:

a. $-\frac{1}{15} - 1\frac{1}{8} =$

b. $-3 + \frac{1}{7} =$

c. $\frac{2}{4} - \frac{2}{25} - 4\frac{1}{8} =$

d. $-5\frac{1}{6} - (\frac{1}{12} - \frac{1}{5}) =$

e. $-\frac{1}{2} + 1\frac{1}{3} - 2\frac{4}{6} =$

f. $-\frac{5}{16} - (\frac{1}{4} + \frac{3}{5}) =$

g. $2 - (\frac{5}{6} + \frac{1}{2}) - (\frac{3}{25} - \frac{1}{2}) =$

h. $-5\frac{1}{6} + \frac{1}{9} - \frac{1}{10}$

4. On Monday Magnus walked $2\frac{1}{2}$ kilometres. On Tuesday he walked $1\frac{3}{5}$ kilometres. On Thursday he walked $4\frac{2}{5}$ kilometres. How many kilometres did Magnus walk all together? Show your work and write your answer in a complete sentence.

5. At one table Helena eats $\frac{3}{8}$ and Alexi eats $\frac{2}{8}$ of their pizza. What part of the pizza have they eaten in total?
6. At another table Sepanta and Denis eat $\frac{3}{8}$ and $\frac{1}{2}$ of their pizza respectively. What part of the pizza have they eaten in total?
7. Find the following:
- The sum of $\frac{2}{5}$, $\frac{4}{8}$, $\frac{8}{10}$
 - The number $5\frac{1}{2}$ less than $\frac{8}{10}$
 - The number $-\frac{3}{4}$ more than $4\frac{1}{10}$