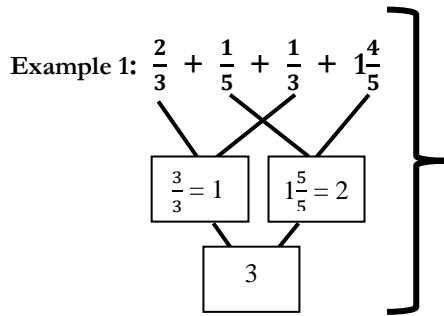
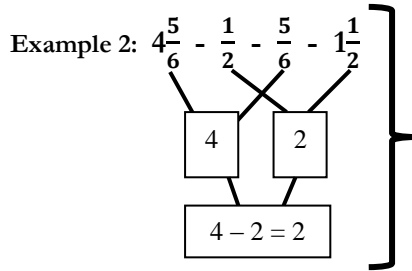


Strategize to solve an addition or subtraction problem involving more than 2 fractions and/or mixed numbers.



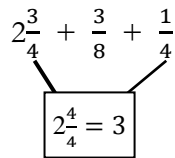
This problem is adding thirds and fifths. The most efficient approach would be to first add the like units together. Then combine the sums.



In this problem we are subtracting $\frac{1}{2}$, $\frac{5}{6}$ and $1\frac{1}{2}$ from $4\frac{5}{6}$. We begin by subtracting $\frac{5}{6}$ from $4\frac{5}{6}$. Now you **don't** subtract $\frac{1}{2}$ from $1\frac{1}{2}$. **Remember we are subtracting both $\frac{1}{2}$ and $1\frac{1}{2}$ from what is left.** So we add $\frac{1}{2}$ and $1\frac{1}{2}$. The sum of 2 is subtracted from the 4.

Application Problem:

During lunch, Chris drinks $2\frac{3}{4}$ cups of milk. Allie drinks $\frac{3}{8}$ cup of milk. Carmen drinks $\frac{1}{4}$ cup of milk. How much milk do the 3 students drink?



$$3 + \frac{3}{8} = 3\frac{3}{8}$$

Chris, Allie, and Carmen drank $3\frac{3}{8}$ cups of milk.

Assess Reasonableness of Solution:

John used $1\frac{3}{4}$ kg of salt to melt the ice on his sidewalk. He then used another $3\frac{4}{5}$ kg on the driveway. If he originally bought 10 kg of salt, how much does he have left? (This is an example of a multi-step problem.)

Step 1

$$\begin{aligned} & 1\frac{3}{4} \text{ kg} + 3\frac{4}{5} \text{ kg} \\ &= 1\frac{15}{20} + 3\frac{16}{20} \\ &= 4\frac{31}{20} \\ &= 4 + \frac{20}{20} + \frac{11}{20} \\ &= 5\frac{11}{20} \text{ kg of salt used} \end{aligned}$$

Step 2

$$\begin{aligned} & 10 \text{ kg} - 5\frac{11}{20} \text{ kg} \\ &= 5 - \frac{11}{20} \\ &= 4\frac{9}{20} \end{aligned}$$

Assess reasonableness of answer:

$$\begin{aligned} & 1\frac{3}{4} + 3\frac{4}{5} & 10 - 6 = 4 & 4\frac{9}{20} \text{ falls between 4 and 5. Since } 4\frac{9}{20} \\ & \approx 2 + 4 & & \text{is less than half, } 4\frac{9}{20} \text{ is closer to 4} \\ & = 6 & & \text{than 5 which we can say the solution} \\ & & & \text{is reasonable.} \end{aligned}$$

John had $4\frac{9}{20}$ kg of salt left.