

Add and Subtract in Word Problems



Dear Family,

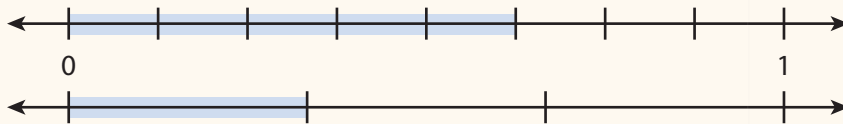
This week your child is learning to add and subtract fractions and decimals in word problems.

Your child is also learning to estimate the answer in order to check whether an answer is reasonable or not. He or she might see a problem like this:

*Paul used $\frac{5}{8}$ cup of milk to make muffins and $\frac{1}{3}$ cup of milk to make nut bread.
How much milk did Paul use to make muffins and nut bread?*

To solve the problem, add the fractions $\frac{5}{8}$ and $\frac{1}{3}$.

It can be helpful to show the fractions on number lines.



To estimate the sum, you can use a benchmark fraction for each fraction in the problem. Here, $\frac{1}{2}$ is a good benchmark fraction to use.

$\frac{5}{8}$ is close to $\frac{1}{2}$ and $\frac{1}{3}$ is close to $\frac{1}{2}$. Since $\frac{1}{2} + \frac{1}{2} = 1$, an estimate of $\frac{5}{8} + \frac{1}{3}$ is about 1.

Now add the fractions $\frac{5}{8} + \frac{1}{3}$. The fractions need to have equal-size parts, so write equivalent fractions with like denominators. Then add.

$$\begin{aligned}\frac{5}{8} &= \frac{15}{24} & \frac{1}{3} &= \frac{8}{24} \\ \frac{15}{24} + \frac{8}{24} &= \frac{23}{24}\end{aligned}$$

Is a sum of $\frac{23}{24}$ a reasonable answer? Check the sum against the estimate you made.

The estimate is about 1, and $\frac{23}{24}$ is about 1, so the sum is reasonable.

Invite your child to share what he or she knows about adding and subtracting fractions in word problems by doing the following activity together.



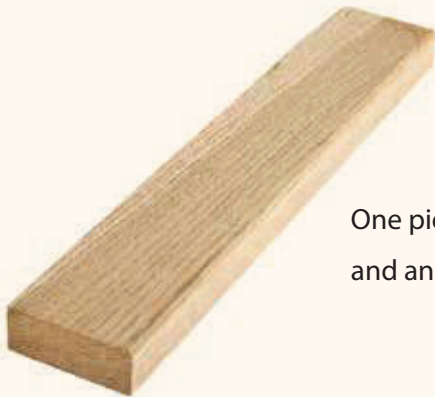
ACTIVITY ADDING AND SUBTRACTING FRACTIONS IN WORD PROBLEMS

Do this activity with your child to add and subtract in word problems.

Work together with your child to identify some real-world situations when you might use fractions, such as when you are cooking, building, or gardening.

- Here are some examples in which you might add and subtract fractions:

A recipe for soup calls for $2\frac{1}{3}$ cups of water and $1\frac{3}{8}$ cups of milk.



One piece of wood is $4\frac{1}{2}$ feet long and another piece is $2\frac{2}{3}$ feet long.

A string used for tomato plants is $3\frac{3}{4}$ feet long. Another string is $2\frac{1}{3}$ feet long.



Choose one of the examples above. Add the mixed numbers in that example. Work together to first make an estimate of the sum. Check your answer against the estimate to make sure your answer is reasonable.