KEY

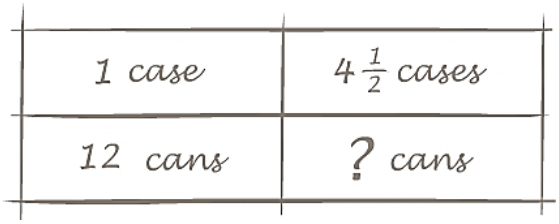
Solving Fraction Story Problems

Objective

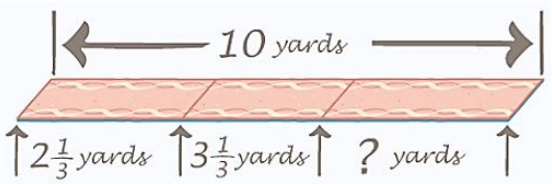
In this lesson, you will

solve real-life problems using addition, subtraction, multiplication, division, and fractions.

Tom has $4\frac{1}{2}$ cases of soda. If there are 12 cans in a case, how many cans does Tom have?

Problem-Solving Steps	
1. **Decide** what the question is.	How many **cans** does Tom have?
2. **List** the information you know.	• There are **12** cans in one case. • Tom has $4\frac{1}{2}$ **cases** of soda.
3. **Draw** a picture or chart that shows the information and the question.	
4. **Write** the steps that tell how to find the answer.	(•) Multiply ( ) Divide the number of cans in one case times the number of cases.
5. **Write** and solve the arithmetic problem for each step.	☐ $12 \div 4\frac{1}{2} = ?$ ☑ $12 \times 4\frac{1}{2} = ?$
6. **Check** your work.	**54** $\div 12 = 4\frac{1}{2}$

Arliss has two pieces of carpet runner. One is $2\frac{1}{3}$ yards long and the other is $3\frac{1}{3}$ yards long. She needs 10 yards of carpet runner altogether. How much more does she need to buy?

Question:	How many **more** yards of carpet does Arliss **need**?
Information you know:	• two pieces of carpet runner $2\frac{1}{3}$ yards and $3\frac{1}{3}$ yards • needs **10** yards
Picture:	
Steps to solve:	1. (•) Add ( ) Subtract the number of yards of the two pieces. 2. ( ) Add (•) Subtract what she has now from the total she needs.
Solution:	First step: ☑ $2\frac{1}{3}+3\frac{1}{3}=?$ ☐ $2\frac{1}{3}\times 3\frac{1}{3}=?$ Second step: ☑ $10-5\frac{2}{3}=?$ ☐ $10+5\frac{2}{3}=?$
Check:	$5\frac{2}{3}+4\frac{1}{3}=$ **10** $5\frac{2}{3}-3\frac{1}{3}=2\frac{1}{3}$

Summary

Which operations require the use of common denominators?

Addition and subtraction