KEY

Solving Division Story Problems

Objective

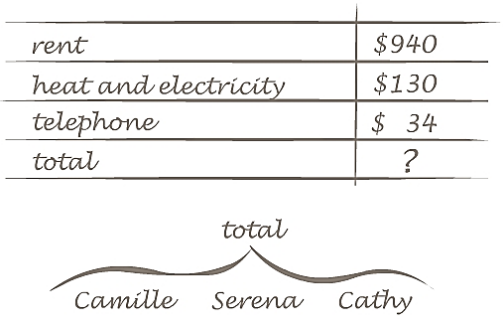
In this lesson, you will

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

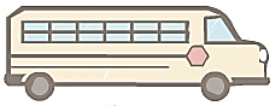
Kyle wants to know how long a 30-pound bag of dog food will last. He has 3 big dogs, and each dog eats 2 pounds of food in one day.

Problem-Solving Steps	
1. **Decide** what the question is.	How many **days** will 30 pounds of dog food last?
2. **List** the information you know.	• There are **3** dogs. • Each dog eats **2** pounds of food every day. • The bag of dog food weighs **30** pounds.
3. **Draw** a picture or chart that shows the information and the question.	
4. **Write** the steps that tell how to find the answer.	1. ◉ Multiply ○ Divide the amount each dog eats times the number of dogs. 2. ○ Multiply ◉ Divide the number of pounds in the bag by the number of pounds the dogs eat in one day.
5. **Write** and solve the arithmetic problem for each step.	For step 1: 2 × 3 = **6** pounds For step 2: 30 ÷ **6** = **5** days
6. **Check** your work.	6 × **5** = 30 pounds 6 ÷ 3 = **2** pounds

Three women, Camille, Serena, and Cathy are going to rent an apartment together. They will each pay an equal share for the apartment. Cathy needs to figure out what her share will be each month. She knows that the total each month will be 940 dollars for rent, 130 dollars for heat and electricity, and 34 dollars for basic telephone service.

Question:	What is **one** woman's share for one **month**?
Information you know:	• rent: **940** dollars • heat and electricity: **130** dollars • telephone: 34 dollars • **3** women pay equal shares
Picture:	
Steps to solve:	1. (•) Add ( ) Subtract the costs for rent, heat and electricity, and telephones. 2. ( ) Multiply (•) Divide the total costs by the number of women.
Solution:	First step: ☐ 940 × 3 = ? ☐ (940 – 130) – 34 = ? ☑ 940 + 130 + 34 = ? ☐ 940 ÷ 3 = ? Solution: **1104** Second step: ☑ 1104 ÷ 3 = ? ☐ 1104 ÷ 2 = ? ☐ 1104 × 3 = ? ☐ 940 × 2 = ? Solution: **368**
Check:	**368** × 3 = 1104 1104 – 130 = **974** **974** – 34 = 940

How many school buses will be needed to take the children of Anderson School on a field trip? Each bus can carry 60 people. 390 children and 30 adults are going on the trip.

Question:	**How many buses are needed for 390 children and 30 adults?**
Information you know:	• **390** children going on outing • **30** adults going with them • **60** people on each bus
Picture:	**60** people =  1 bus **390** children **30** adults = how many buses ?
Steps to solve:	1. (•) Add ( ) Subtract the number of children and the number of adults. 2. ( ) Multiply (•) Divide the total number of people by the number of people who can ride on each bus.
Solution:	$390 + 30 = 420$ **420** $\div 60 =$ **7**
Check:	$420 - 30 = 390$ $60 \times 7 = 420$

Summary

In the examples above, what words or phrases clued you to use division?

Answers will vary.