

3rd Grade Math: Real-World Problems Using Division

What is Division?

- **Division** is when we take a large number (called the **dividend**) and split it into smaller, equal groups. The number we divide by is called the **divisor**, and the result is called the **quotient**.
- We use division in real-world situations when we need to split things into equal parts or figure out how many groups we can make.

How to Solve Real-World Division Problems

1. Step 1: Understand the Problem

Read the problem carefully to figure out what is being divided and how it is being split.

2. Step 2: Identify the Dividend and Divisor

The dividend is the total amount, and the divisor is the number of groups or the size of each group.

3. Step 3: Solve the Division Problem

Divide the total (dividend) by the number of groups (divisor) to find the quotient.

Example 1: Sharing Cookies

Problem:

Jenna has 24 cookies. She wants to share them equally among 6 friends. How many cookies will each friend get?

Steps:

4. **Understand the Problem:** We need to split 24 cookies equally among 6 friends.
5. **Identify the Dividend and Divisor:**
 - **Dividend** = 24 (total cookies)
 - **Divisor** = 6 (friends)
6. **Solve:**

$$24 \div 6 = 4$$

Answer: Each friend will get 4 cookies.

Example 2: Packing Books in Boxes

Problem:

A librarian has 36 books and wants to pack them equally into 9 boxes. How many books will be in each box?

Steps:

7. **Understand the Problem:** We need to split 36 books into 9 boxes.
8. **Identify the Dividend and Divisor:**
 - **Dividend** = 36 (total books)
 - **Divisor** = 9 (boxes)
9. **Solve:**

$$36 \div 9 = 4$$

Answer: There will be 4 books in each box.

Example 3: Distributing Balloons

Problem:

There are 45 balloons, and they need to be divided equally among 5 children. How many balloons will each child get?

Steps:

10. **Understand the Problem:** We need to split 45 balloons equally among 5 children.
11. **Identify the Dividend and Divisor:**
 - **Dividend** = 45 (total balloons)
 - **Divisor** = 5 (children)
12. **Solve:**

$$45 \div 5 = 9$$

Answer: Each child will get 9 balloons.

Example 4: Organizing Chairs

Problem:

A school has 64 chairs. They want to put 8 chairs in each row. How many rows of chairs will there be?

Steps:

1. **Understand the Problem:** We need to figure out how many rows of chairs there will be if we place 8 chairs in each row.
2. **Identify the Dividend and Divisor:**
 - **Dividend** = 64 (total chairs)
 - **Divisor** = 8 (chairs per row)
3. **Solve:**

$$64 \div 8 = 8$$

Answer: There will be 8 rows of chairs.

Example 5: Sharing Pencils

Problem:

Mrs. Green has 72 pencils. She wants to share them equally between 9 students. How many pencils will each student get?

Steps:

1. **Understand the Problem:** We need to divide 72 pencils equally among 9 students.
2. **Identify the Dividend and Divisor:**
 - **Dividend** = 72 (total pencils)
 - **Divisor** = 9 (students)
3. **Solve:**

$$72 \div 9 = 8$$

Answer: Each student will get 8 pencils.



Conclusion:

- **Division** helps us solve real-world problems by splitting items into equal groups or figuring out how many groups we can make.

- By identifying the dividend and divisor, we can set up a simple division problem to find the quotient.

Practicing real-world division problems makes it easier to understand how division applies in everyday life!