Divide Multi-Digit Numbers

LESSON 5

Math Tools

Multiplication Models

Dear Family,

This week your child is learning to divide multi-digit whole numbers by a two-digit number.

One way to solve a division problem such as 770 ÷ 14 is to set it up vertically.

First divide the hundreds in 770 by 14.
There are **50** groups of 14 in 700.

Then divide the tens in 770 by 14.
There are **5** groups of 14 in 70.

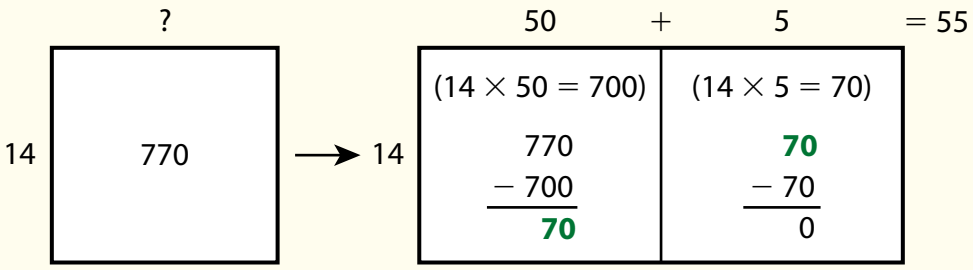
Add the partial quotients to find the quotient.
50 + **5** = 55
So, 770 ÷ 14 = 55.

```
   55   ← quotient
    5   ← partial quotients
   50
14)770
 − 700
   70
 − 70
    0
```

Another way your child is learning to divide is with an area model, similar to the model used in multiplication.

The area model below shows 770 ÷ 14.

Because multiplication and division are **inverse operations**, or operations that undo each other, use the relationship between them to divide.



770 ÷ 14 = 55

Both methods result in the same quotient, 55. Notice that 50 and 5 appear as partial quotients in each way of dividing.

Invite your child to share what they know about dividing whole numbers by doing the following activity together.

ACTIVITY DIVISION IN THE WORLD

Do this activity with your child to divide multi-digit numbers.

Work with your child to solve real-life problems involving division.

- Choose a favorite book with your child and look at the total number of pages in it. The book should have more than 100 pages. Pick a two-digit number of pages to read each day. Ask: *How many days would it take to read the entire book?*
- Use division to find the answer. For example, suppose the book has 286 pages and the number of pages to be read each day is 15. Divide 286 by 15 to find the number of days it will take to read the book.
- Work together to write and solve the division problem about the book. Encourage your child to use rounding and multiplication to help estimate the quotient first.
- Decide what to do if there is a remainder. Will you read the remaining number of pages on the next day, or will you read the remaining number of pages on the last day of reading?
- Repeat this activity at least 3 more times, either using the same situation or another.