# Eureka Math

## 4th Grade
## Module 3
## Lesson 16

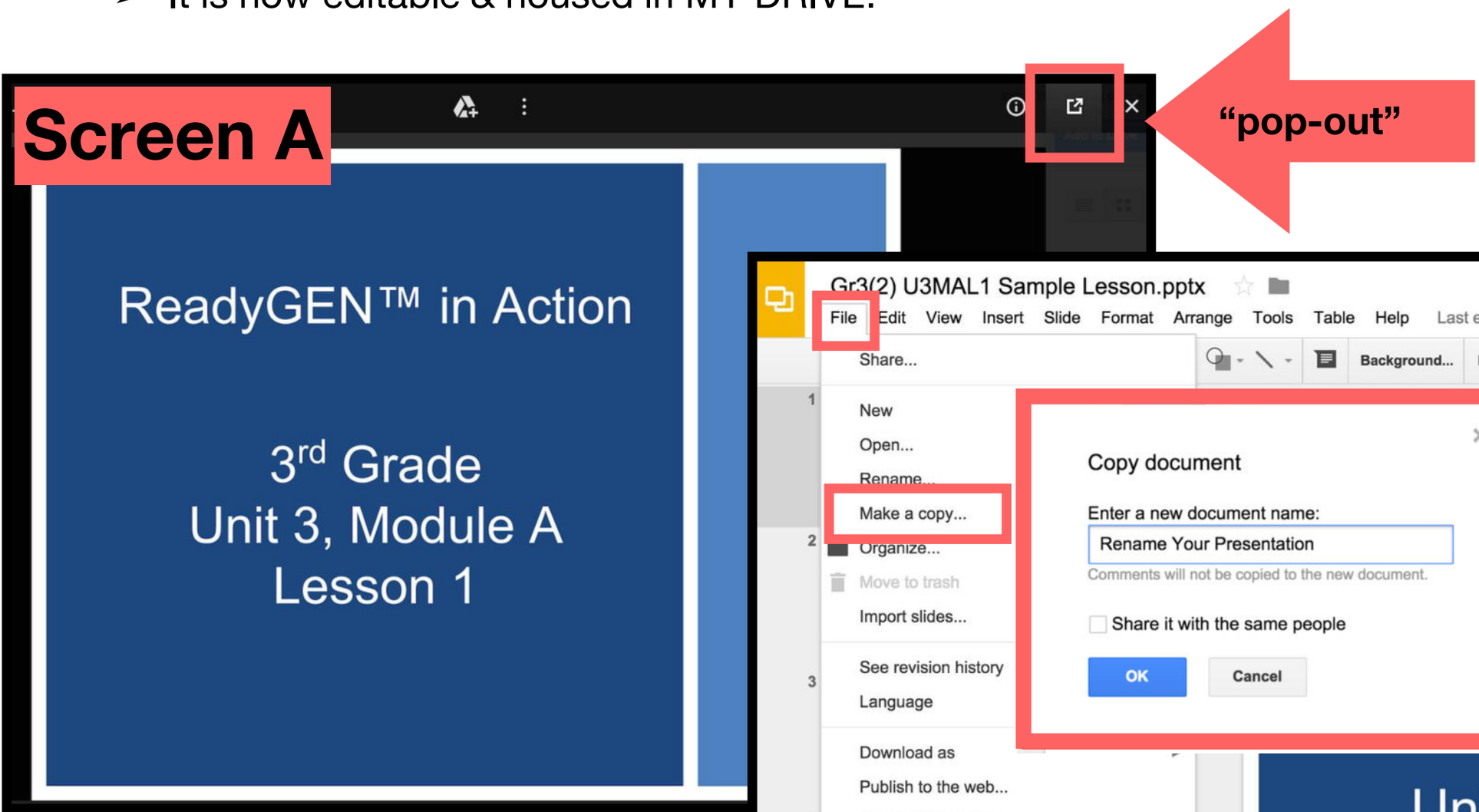
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

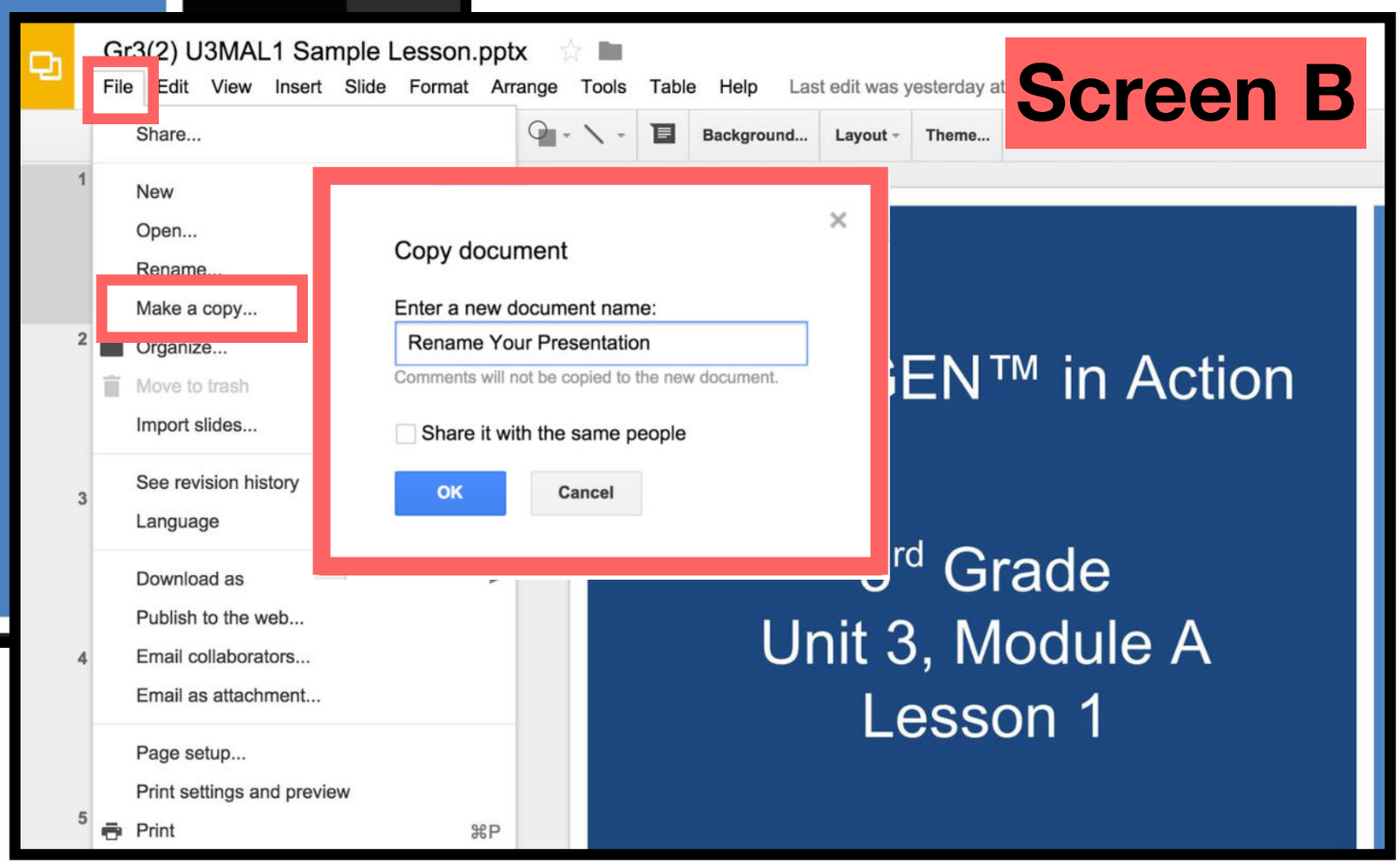
Directions for customizing presentations are available on the next slide.

# Customize this Slideshow

## Reflecting your Teaching Style and Learning Needs of Your Students

- When the Google Slides presentation is opened, it will look like Screen A.
- Click on the “pop-out” button in the upper right hand corner to change the view.
- The view now looks like Screen B.
- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
- Google Slides will open your renamed presentation.
- It is now editable & housed in MY DRIVE.



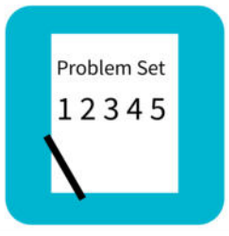



# Icons


Read, Draw, Write

Learning Target

Personal White Board

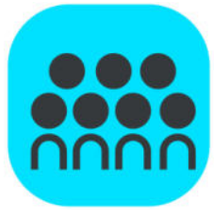



Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

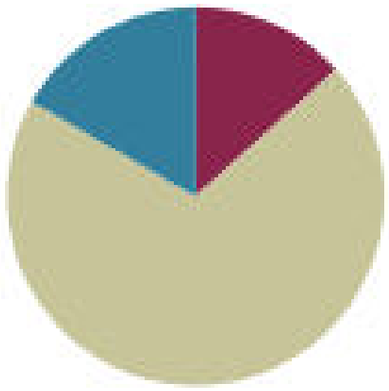
Small Group Time

## Lesson 16

Objective: Understand and solve two-digit dividend division problems with a remainder in the ones place by using place value disks.

### Suggested Lesson Structure

| | |
|---|---|
| Fluency Practice | (8 minutes) |
| Concept Development | (42 minutes) |
| Student Debrief | (10 minutes) |
| **Total Time** | **(60 minutes)** |



Understand and solve two-digit dividend division problems with a remainder in the ones place by using place value disks.

# Group Counting

Count forward and backward. Watch me for the signal to change direction.

## Count by:

- Twos to 20
- Threes to 30
- Fours to 40
- Fives to 50

# Divide with Remainders

$6 \div 2$

$15 \div 2$

$20 \div 5$

$18 \div 5$

$16 \div 4$

$11 \div 3$

$18 \div 3$

$13 \div 4$

$33 \div 4$

# Concept Development

## Materials

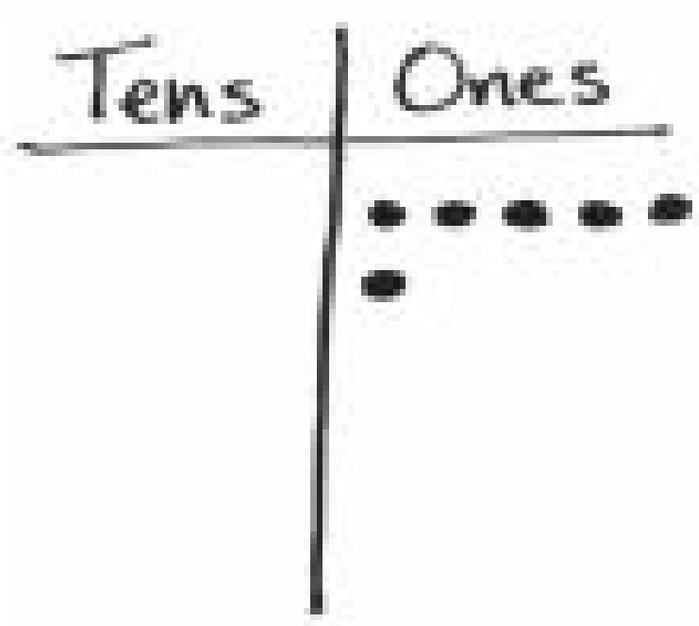
- (S) Personal white boards, tens place value chart (template)

# Solve a Division Problem

$6 \div 3$

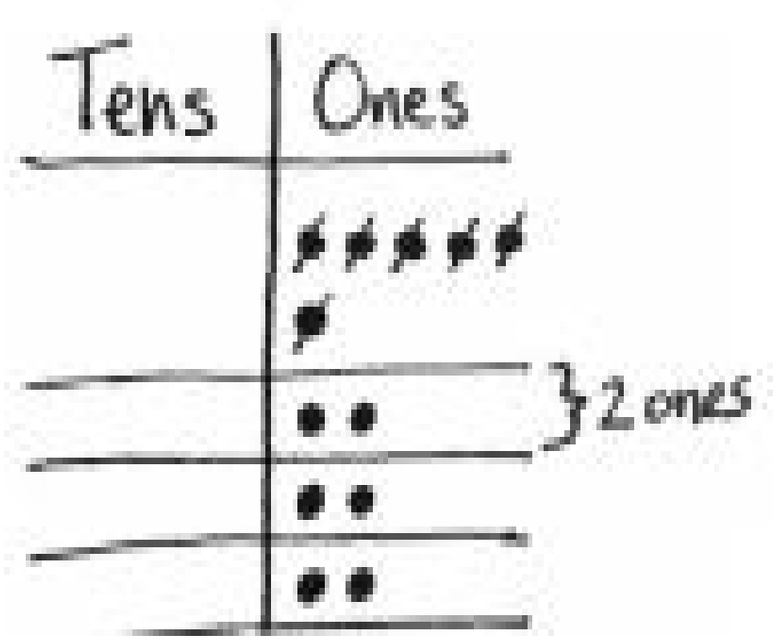
6 ones represents what?

Show 6 using place value disks. What is the number we are dividing by?



# Solve a Division Problem

Let’s assume it’s telling us how many groups to make. Draw 3 groups below. Can we distribute 6 ones into 3 groups? Think of it like dealing cards evenly among 3 players.

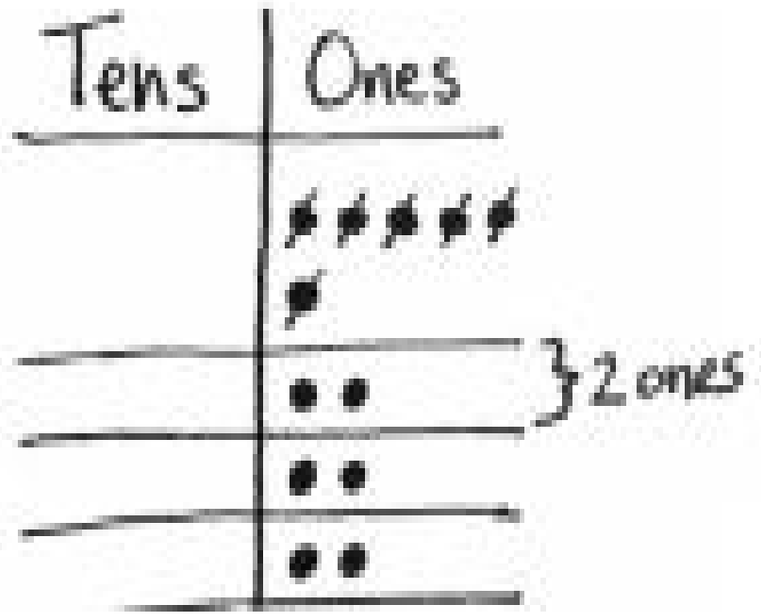



First, put one in each group. Cross off the ones one at a time as you distribute them evenly. Next, put another one in each group if you are able. Continue this until all of the ones are distributed. How many ones in each group?

# Solve a Division Problem

What is 6 ones ÷ 3?

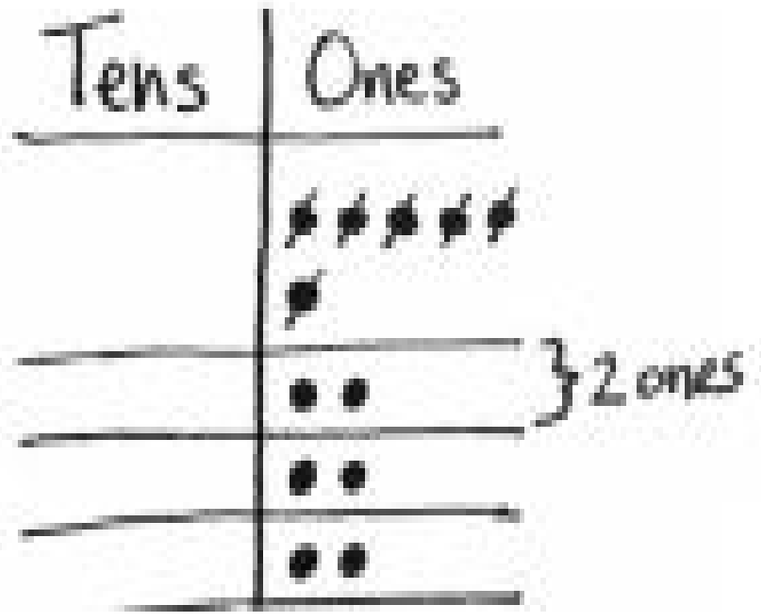
Give me the number sentence.



# Solve a Division Problem

Let’s represent 6 ÷ 3 in a new way.

Let’s record the whole and the divisor.



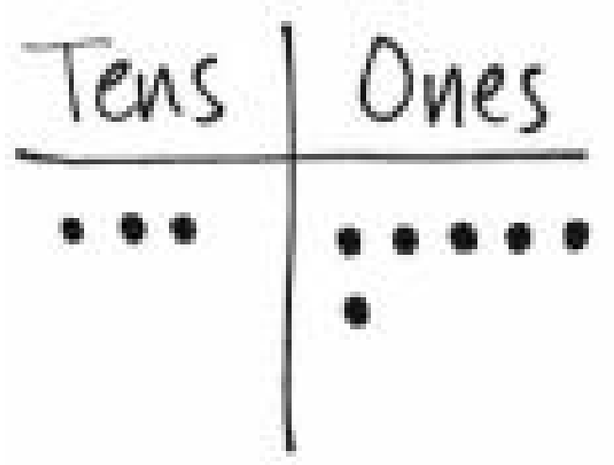

Look back to your model. 6 ones divided by 3 is…?

$3\overline{)6}$

# Solve a Division Problem

$36 \div 3$

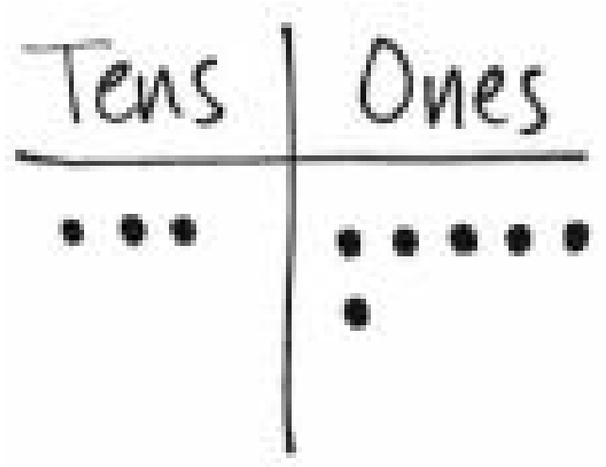
Show 36 using place value disks. What is the number we are dividing by? Make room for 3 groups below.



# Solve a Division Problem

$36 \div 3$

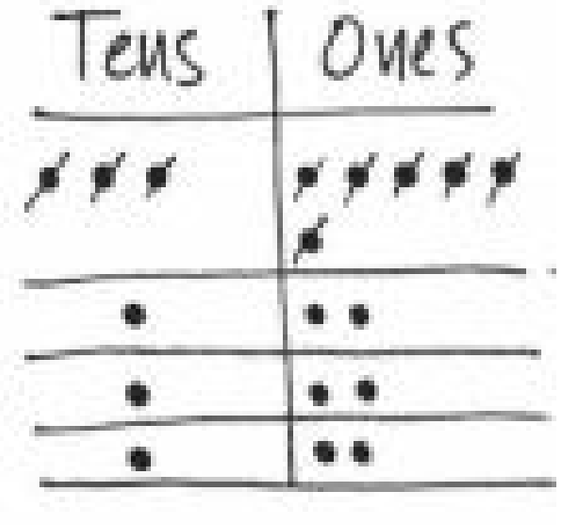
Let’s start dividing with the largest units. What is the largest unit?



# Solve a Division Problem

$36 \div 3$

How many tens and ones are in each of our 3 groups?



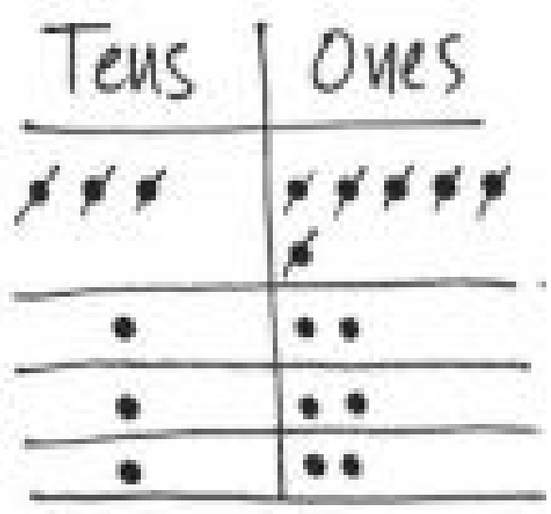

What is $36 \div 3$?

# Solve a Division Problem

$36 \div 3$

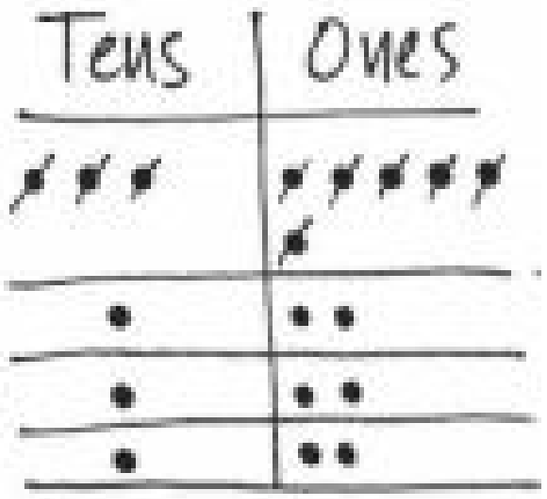
Let's represent $36 \div 3$ using numbers. Record the whole and the divisor.

$3\overline{)36}$



# Solve a Division Problem

3|36




Look back to your model. 3 tens divided by 3 is…?
(continue to link the place value chart to the standard algorithm)

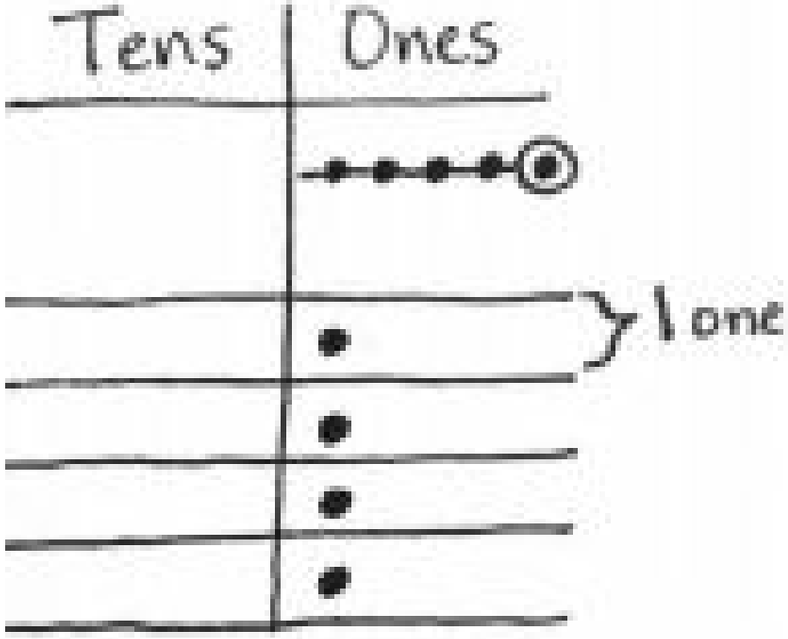
# Solve a Division Problem

**5 ÷ 4**

With your partner, represent the whole and the divisor, 4, on the place value chart, and record the written problem.

# Solve a Division Problem

**5 ÷ 4**




$$4\overline{)5}$$

# Solve a Division Problem

**45 ÷ 4**

Represent 45 using place value disks. Prepare to represent 45 ÷ 4 numerically.

# Solve a Division Problem

**8 ÷ 3**

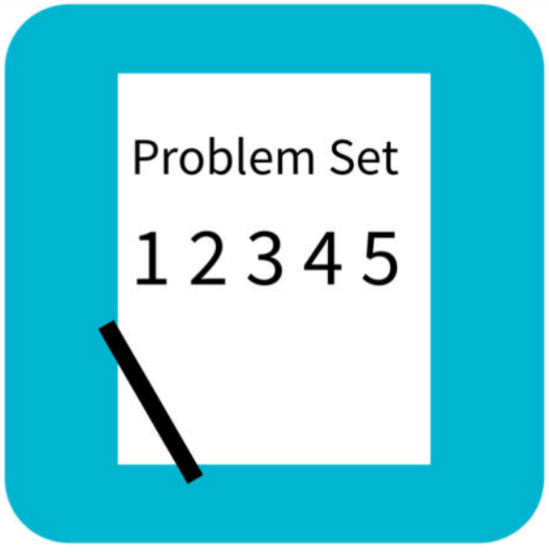
Solve for 8 ÷ 3 using place value disks. Represent the problem using long division with your partner.

# Solve a Division Problem

**68 ÷ 3**

Solve for 68 ÷ 3 using place value disks. Represent the problem using long division with your partner.

How can we check to see if we have the correct answer?




# Problem Set



Name _____ Date _____

Show the division using disks. Relate your work on the place value chart to long division. Check your quotient and remainder by using multiplication and addition.

1. $7 \div 2$

| Ones |
| --- |
| |

$2 \overline{)7}$

quotient = _____

remainder = _____

Check Your Work

$$\begin{array}{r} 3 \\ \times\ 2 \\ \hline \end{array}$$

# Debrief

Participate in the discussion by...

- Thinking about the question.
- Sharing your work.
- Explaining your strategy.
- Listening to others.

# Debrief

How did solving Problem 1 prepare you for solving Problem 2?

Explain to your partner why only 6 ones could be distributed in Problem 3. What happens to the remaining ones?

As a divisor gets larger, what will happen to the quotient if the whole stays the same?

Was the remainder ever larger than the divisor? Why not?

# Exit Ticket



Name _____ Date _____

Show the division using disks. Relate your work on the place value chart to long division. Check your quotient and remainder by using multiplication and addition.

1. $5 \div 3$

| Ones |
| --- |
| |

$3 \overline{)5}$

quotient = _____

remainder = _____

Check Your Work