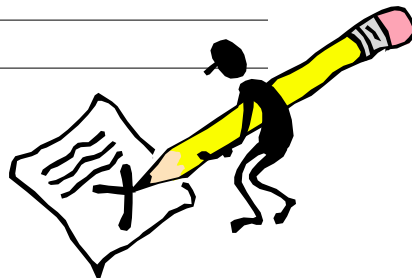


Math Journal



Learning Target

I can explain remainders by using place value understanding and models.

REASONING ABOUT REMAINDERS

What does a remainder mean? How does it affect how the problem is ultimately solved? In real life, understanding the significance of the remainder and its effect on your problem is critical.

Model division with remainders in the tens and ones places using place value discs.

$$41 \div 3 = m$$

Place Value
Discs

T	O
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3 groups

Standard
Algorithm

$$\begin{array}{r} 3 \overline{) 41} \end{array}$$

If 41 people are traveling by motorbike Mt. Mangengenge. Each motorbike can carry 3 people. How many motorbikes will they need to transport everyone to the hike?

Lea brought 41 grapes to share with two of her friends at lunch. If each of the three people gets an equal amount of grapes, how many grapes does each person get?

Jogith saved some money, which he wanted to donate equally to 3 different charities. How much money would he donate to each charity?

Reflect:

How did each scenario affect the remainder? Why?



Represent the problem using place value discs and connect it to the standard algorithm.

$$64 \div 4 = m$$

Place Value
Discs

Standard
Algorithm

Fraction

T	O
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4 groups

$$\begin{array}{r} 4 \overline{) 64} \end{array}$$

$$\frac{64}{4} =$$

May has \$64 that she would like to share equally among 4 friends. How much would each friend get?

Reflect:

How does thinking about monetary division problems help you understand unbundling? Why?



Mots Mathématiques

Describing Division Word Bank:

cross out

distribute

divide

draw

equal

fair

last

multiply

next

ones

share

subtraction

tens

then

unbundle

Use the word bank to describe how to solve:

$$45 \div 3.$$

Represent the problem using place value discs and connect it to the long division standard algorithm. Check your answer using multiplication.

Standard Algorithm

$$\begin{array}{r} 3 \overline{) 94} \end{array}$$

Fraction

$$\frac{94}{3} =$$

Place Value Discs

T	O

Check

Laetitia says that $94 \div 3$ is 30 with a remainder of 4. She reasons this is correct because $(3 \times 30) + 4 = 94$. What mistake has Laetitia made? Explain how she can correct her work.



The place value disc model is showing $72 \div 3$. Complete the model.

T	O

Explain what happens to the 1 ten that is remaining in the tens column.

Represent the problem using place value discs and connect it to the long division standard algorithm. Check your answer using multiplication.

Two friends evenly share 56 dollars.

They have 5 ten-dollar bills and 6 one-dollar bills. Draw a picture to show how the bills will be shared. Will they have to make change at any stage?

Standard
Algorithm

Fraction

Place Value Discs

Check

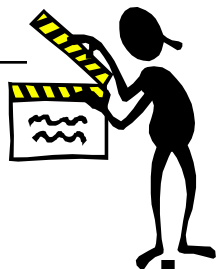


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How is the remainder represented in the fraction?

Imagine you are filming an instructional video for new fourth graders explaining a problem that divides a two-digit number by one-digit. Create a script to explain how you can keep dividing after getting a remainder of 1 ten in the first step.



Represent the problem using place value discs and connect it to the long division standard algorithm. Check your answer using multiplication.

When you divide 86 by 4, there is a remainder of 2. Model this problem with place value discs. In the place value disc model, how can you see that there is a remainder?

Standard
Algorithm

Fraction

Place Value Discs

Check



_____ =

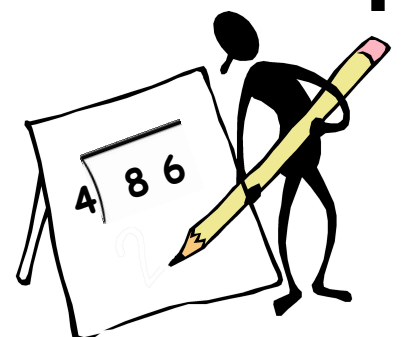
T	O

Rudy says that $86 \div 4$ is 20 with a remainder of 6. He reasons this is correct because $(4 \times 20) + 6 = 86$. What mistake has Rudy made? Explain how he can correct his work.



Reflect:

How does identifying and reflecting on our own mistakes or the mistakes of others help promote deeper thinking and understanding about a concept?



Represent the problem using place value discs and connect it to the long division standard algorithm. Check your answer using multiplication.

Two friends evenly share 76 blueberries.

To count the blueberries, they put them into small bowls of 10 blueberries. Draw a picture to show how the blueberries can be shared equally. Will they have to split apart any of the bowls of 10 blueberries when they share them?

**Standard
Algorithm**

Fraction

Place Value Discs

Check



$\frac{\quad}{\quad} =$

T	O

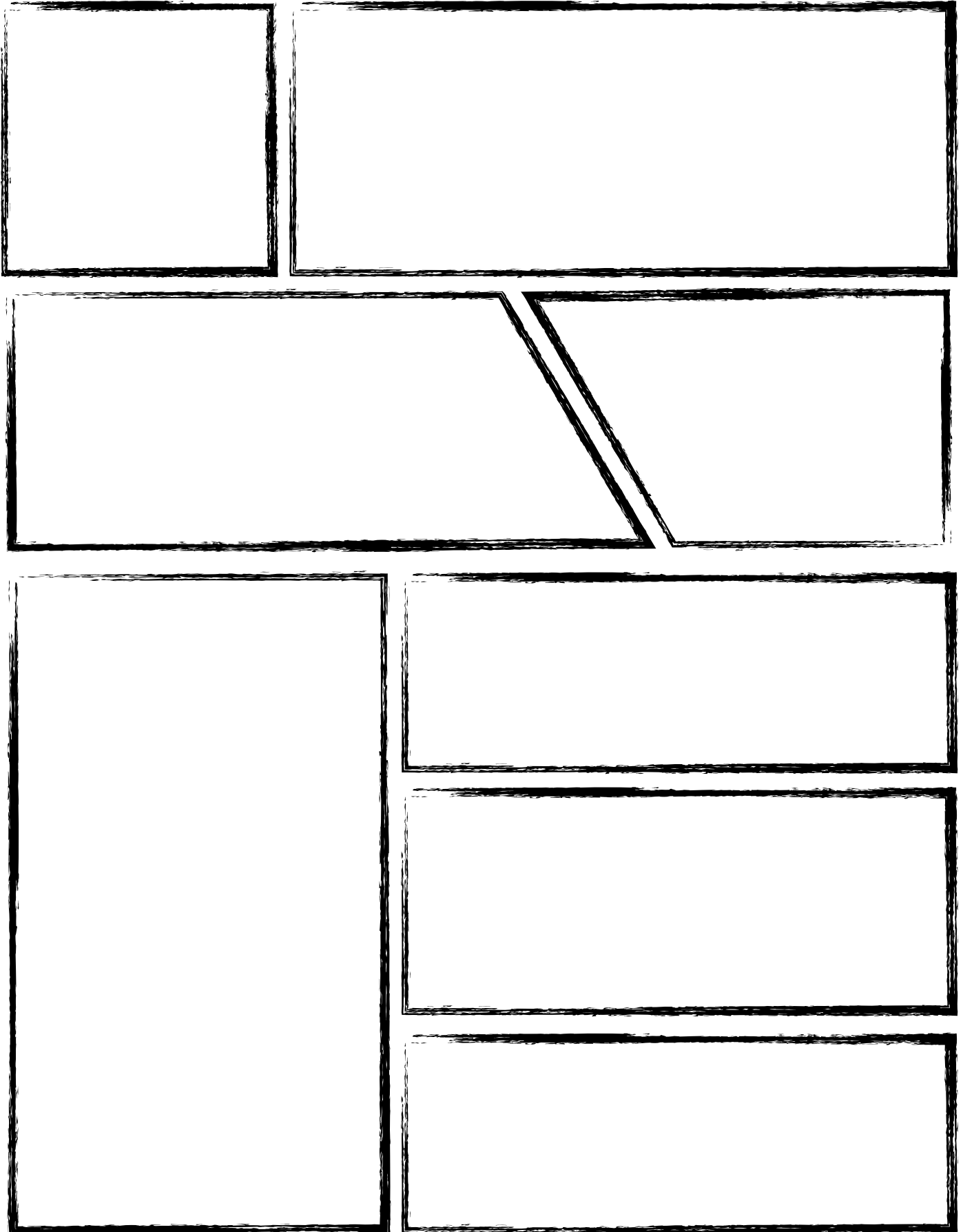
Explain how the friends can share the blueberries fairly?

The place value disc model is showing $67 \div 4$. Complete the model.

T	O
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Explain what happens to the 2 tens that are remaining in the tens column.

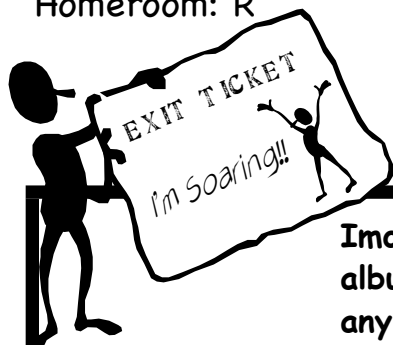
You are being asked to create a comic strip for a math-themed graphic novel explaining a problem that divides a two-digit number by one-digit. Create a script to explain how you can keep dividing after getting a remainder of 3 tens in the first step.



Homeroom: R

Name: _____

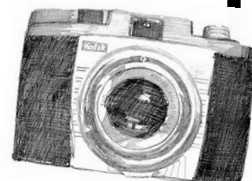
Date: _____



Imogen's photo album has a total of 97 pictures. Each page of the album holds 6 pictures. How many pages can Imogen fill? Will there be any pictures left? If so, how many? Use place value discs to solve.

T	O
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Check:



Mekhi's photo album has a total of 45 pictures. Each page of the album holds 4 pictures. He said he can only fill 10 pages completely. Do you agree? Explain why or why not.

Check:

T	O
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Explain:

