Materials List

(S/T) Place Value Disks
(S/T) Place Value Chart

(S) Personal white board

Eureka Math

3rd Grade
Module 3
Lesson 19

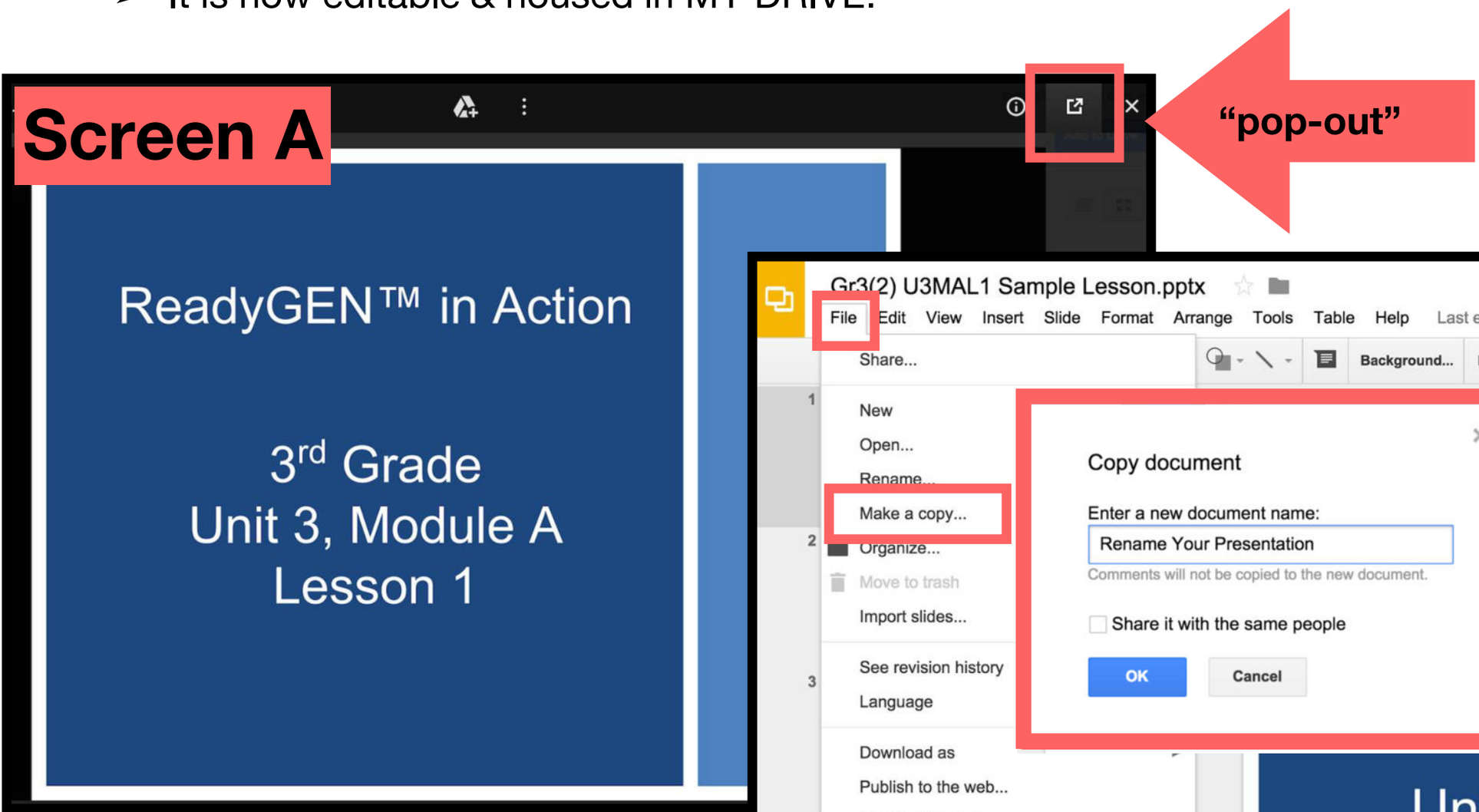
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this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

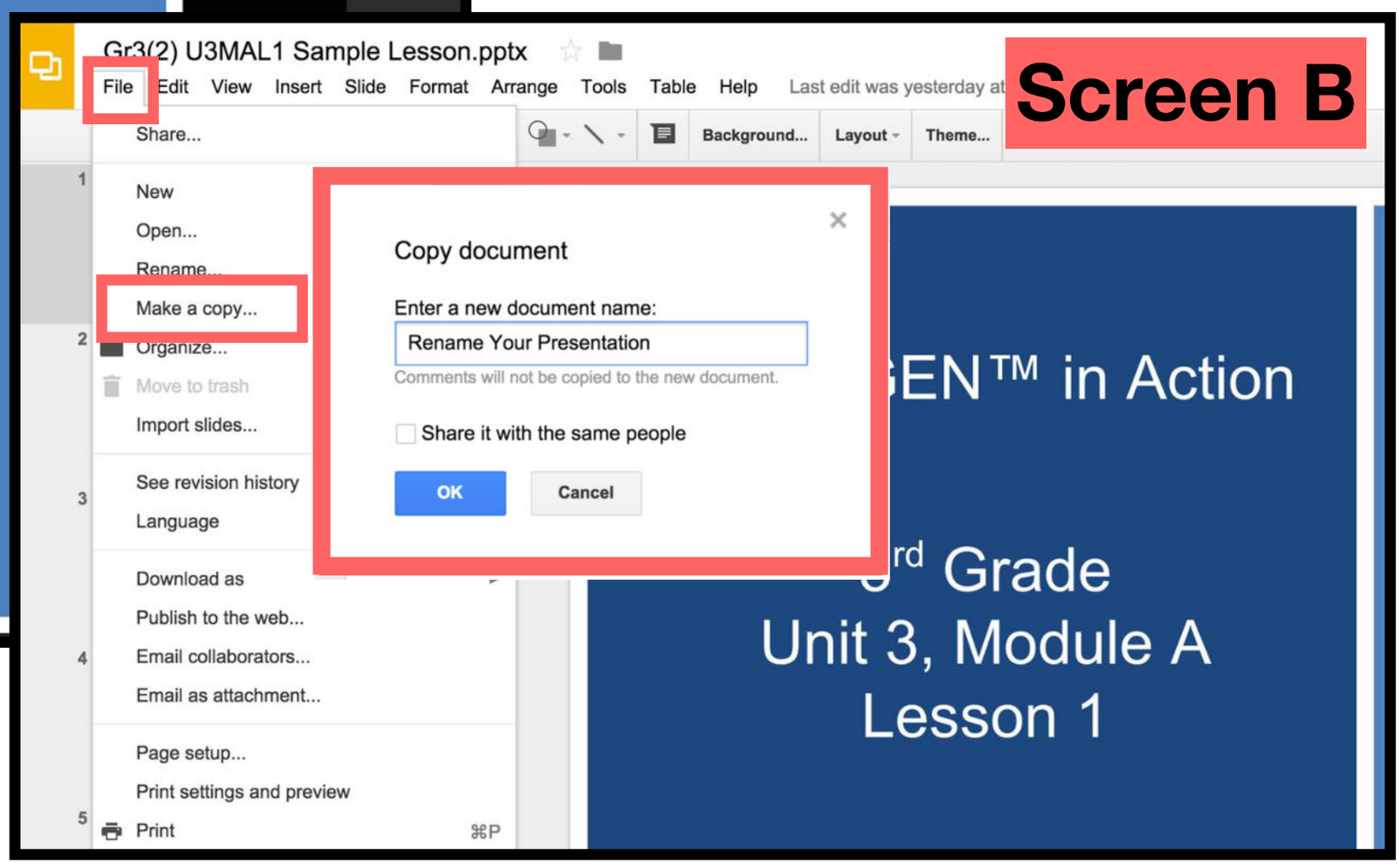
Directions for customizing presentations are available on the next slide.

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

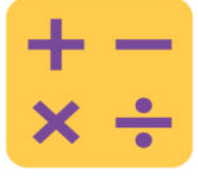
Read, Draw, Write

Learning Target

Personal White Board

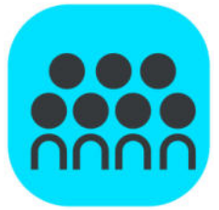
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

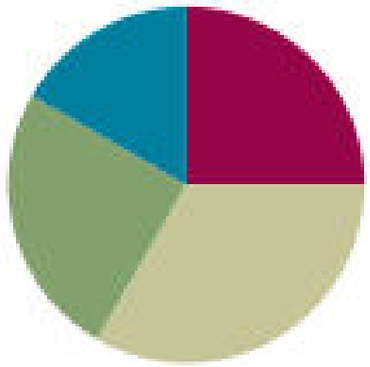
Small Group Time

Lesson 19

Objective: Multiply by multiples of 10 using the place value chart.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Concept Development	(20 minutes)
Application Problem	(15 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Group Counting **3.OA.1** (4 minutes)
- Multiply with 10 **3.NBT.3** (3 minutes)
- Multiply by Different Units **3.NBT.3** (4 minutes)
- Exchange Place Value Disks **3.NBT.3** (4 minutes)

NOTES ON TIMING:

The Application Problem comes after the Concept Development in this lesson. The 15 minutes allotted for the Application Problem includes 5 minutes for the Application Problem and 10 minutes for the Problem Set.

I can multiply by multiples of ten using a place value chart.

Group Counting

- Sixes to 60
- Sevens to 70
- Eights to 80
- Nines to 90

Multiply with 10

I'll say a fact.

You say the whole equation.

10 × 1

10 × 2

10 × 3

10 × 9

10 × 7

Multiply with 10

I'll say a product that is a multiple of 10.

You say the multiplication fact starting with 10.

Example: Teacher says, "20" Student says, "10 x 2 = 20"

30 [redacted]3 =

40 [redacted]4 =

80 [redacted]4 =

60 [redacted]4 =

Multiply by Different Units

$2 \times 3 = \_\_\_\_\_$

Say the multiplication equation in unit form

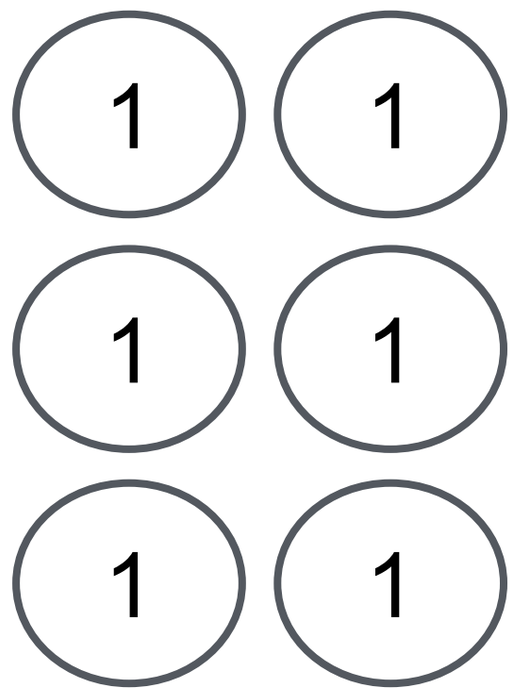
Example: 2 × 3 ones = 6 ones.

2 × 3 cats = ____

On your personal white board, write the multiplication equation.

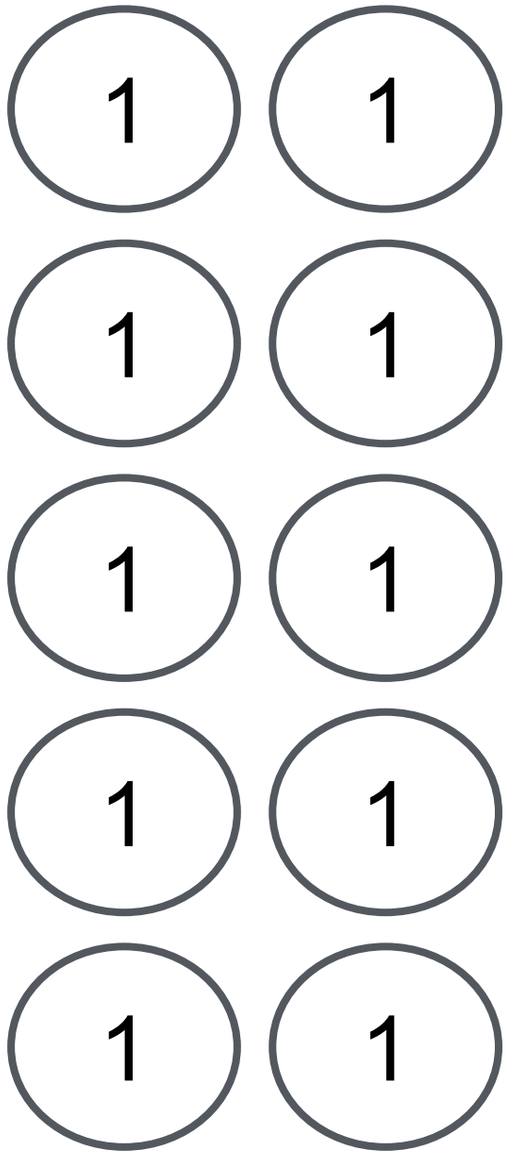
= _____cats?

Exchange Place Value Disks

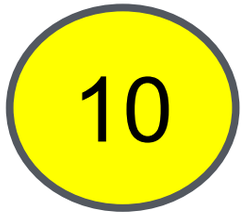


3 x 2 ones = 6 ones

Exchange Place Value Disks



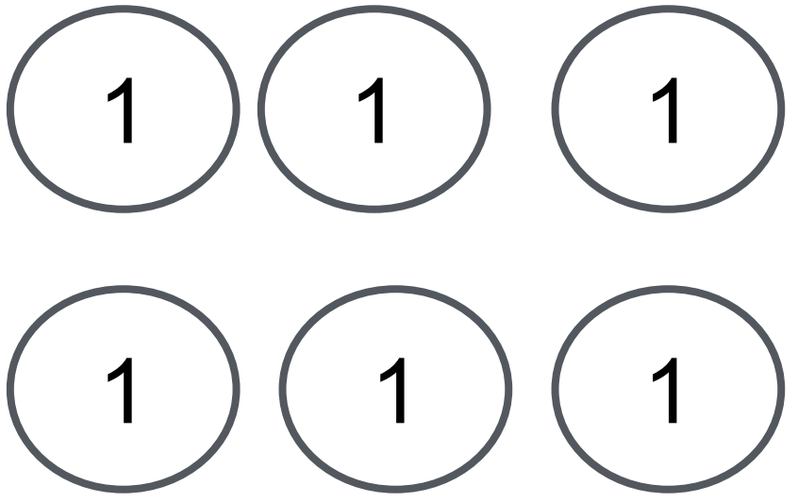
10 ones can be exchanged for 1 of what unit?



5 x 2 ones = 10 ones

Concept Development

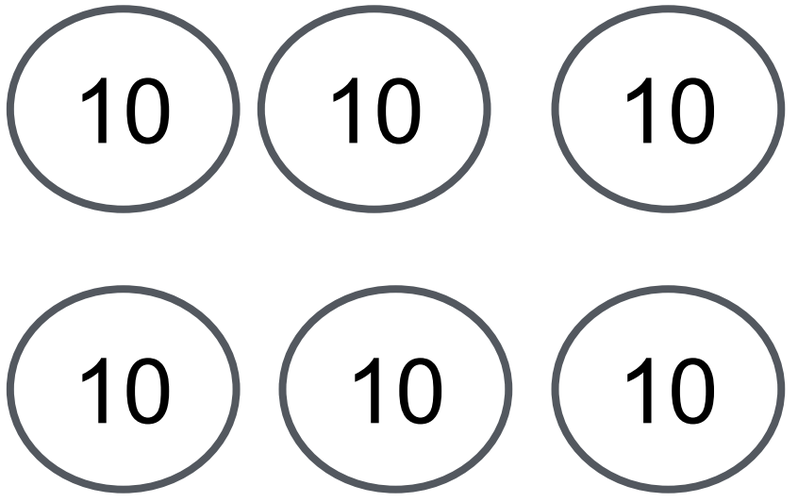
Multiply by multiples of 10 using place value disks.



2 x 3 ones = 6 ones. Our array shows this equation, true?

Concept Development

Use your disks to show 2 rows of 3 tens.



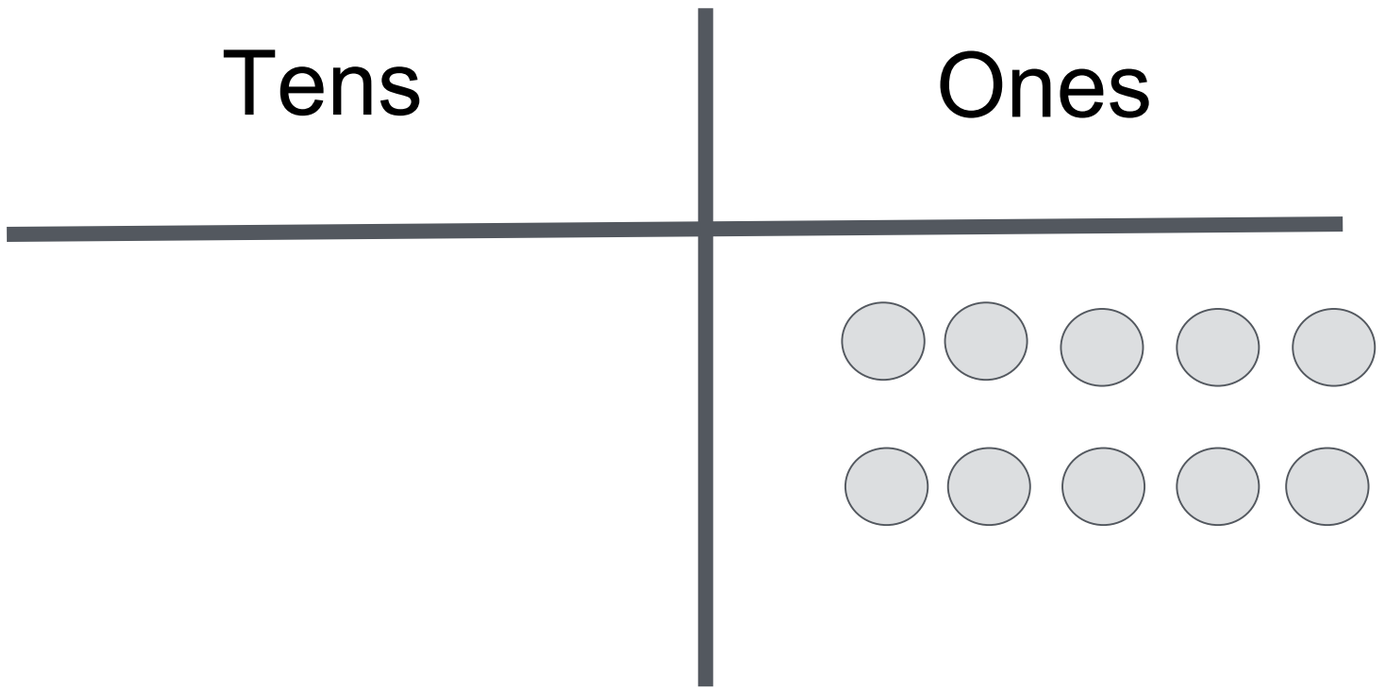
2 x 3 tens = **6** tens.

What is the value of 6 tens **60**

Standard Form: 2 x 30 = **60**

Concept Development

Multiply by multiples of 10 using place value disks.

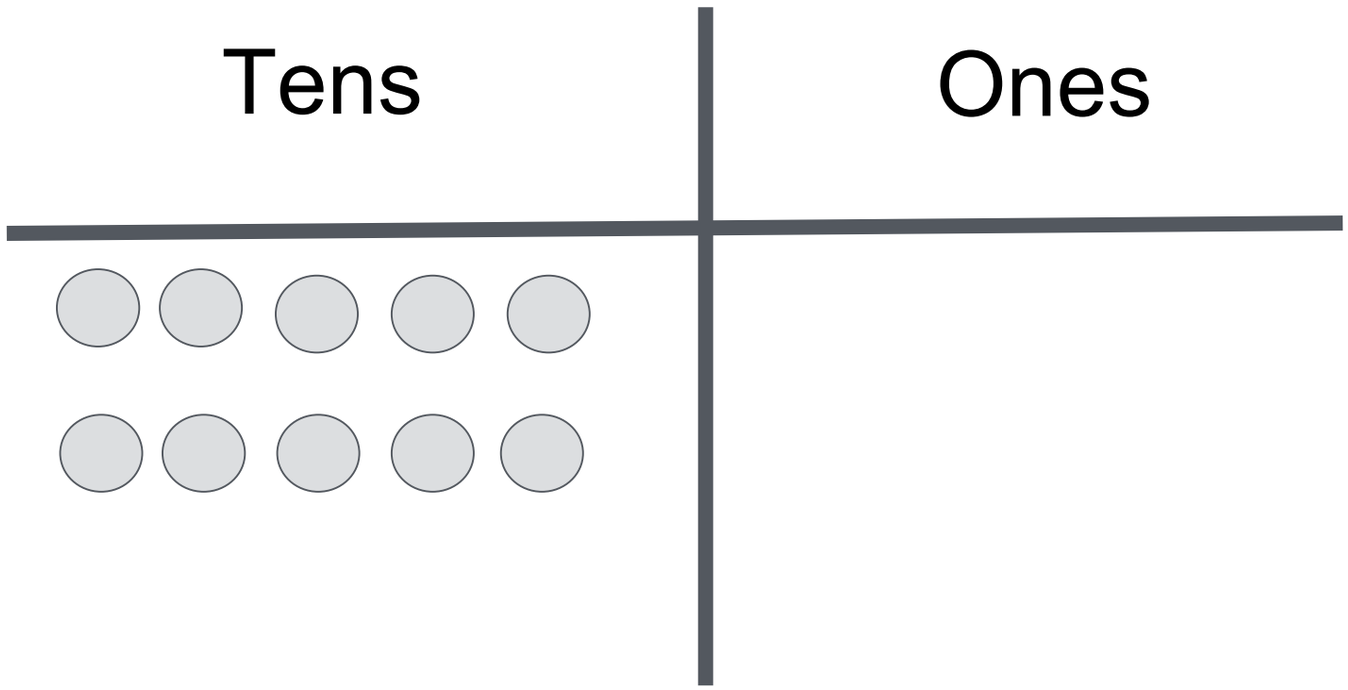


Use the chart to write an equation in both unit form and standard form. (Answer on click)

2 x 5 ones = 10 ones and 2 x 5 = 10

Concept Development

Multiply by multiples of 10 using place value disks.



Use the chart to write an equation in both unit form and standard form. (Answer on click)

2 x 5 tens = 10 tens and 2 x 50 = 100

Concept Development

Multiply by multiples of 10 using place value disks.

80 x 6

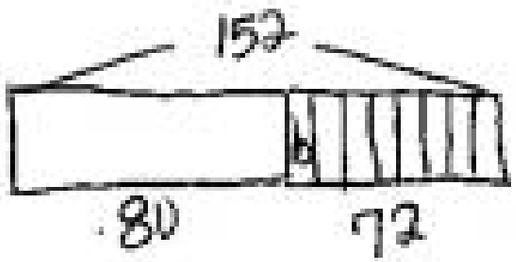
How could we use that strategy to solve a more complicated problem like this one?

First, think about 8 ones x 6= 48 ones.

Then, think about 8 tens x 6 = **48** tens. How much is that in standard form? **480**

Application Problem

Mia has 152 beads. She uses some to make bracelets. Now there are 80 beads. If she uses 8 beads for each bracelet, how many bracelets does she make?



$$\begin{array}{r} {}^{1}\cancel{5}{}^{7}\cancel{2} \\ -\ 80 \\ \hline 72 \end{array}$$

b = number of bracelets

$72 \div 8 = b$

$b = 9$

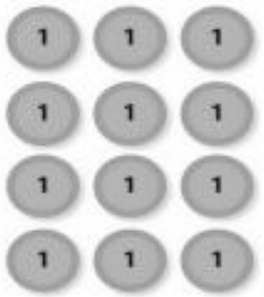
Mia makes 9 bracelets.

Problem Set

Name _____ Date _____

1. Use the disks to fill in the blanks in the equations.

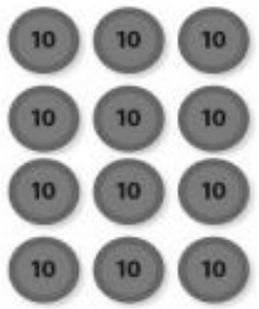
a.



4 × 3 ones = _____ ones

4 × 3 = _____

b.



4 × 3 tens = _____ tens

4 × 30 = _____

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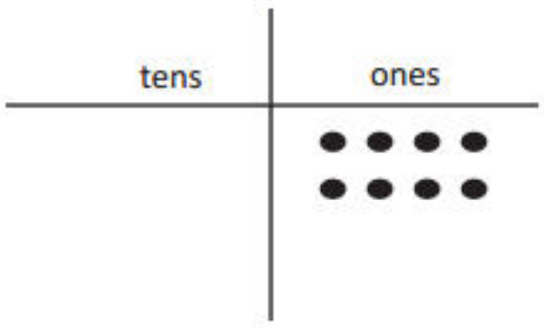
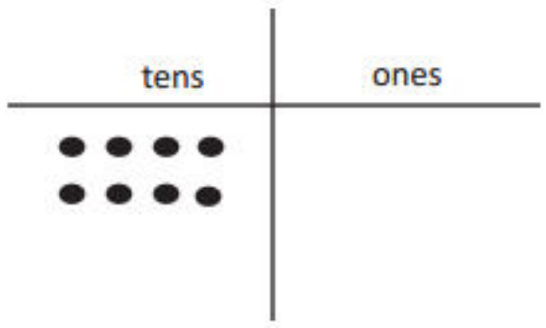
2. Use the chart to complete the blanks in the equations.



a. 2 × 4 ones = _____ ones

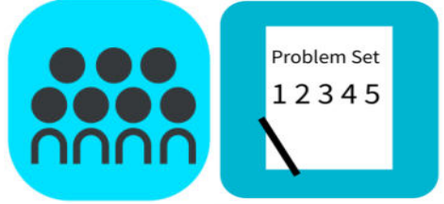
2 × 4 = _____



b. 2 × 4 tens = _____ tens

2 × 40 = _____

Student Debrief

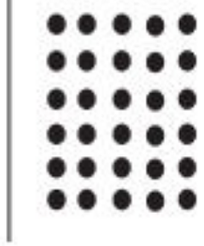


- How do the disks in Problem 1 show the strategy we learned today?
- What is the relationship between the charts in the left column and the charts in the right column in Problem 2?
- How did the left column help you solve the problems in the right column?
- How does knowing your multiplication facts help you easily multiply by multiples of 10?

Exit Ticket

Name _____ Date _____

1. Use the chart to complete the blanks in the equations.

tens	ones
	

tens	ones
	

6 × 5 ones = _____ ones

6 × 5 = _____

6 × 5 tens = _____ tens

6 × 50 = _____

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2. A small plane has 20 rows of seats. Each row has 4 seats.

   a. Find the total number of seats on the plane.