

Division

This section will focus on understanding the concepts associated with the division of whole numbers.

Tray Setup

Figure 1 illustrates the initial tray setup that will be used for all whole number operations. This setup is also what we refer to when students are reminded to reset their trays.

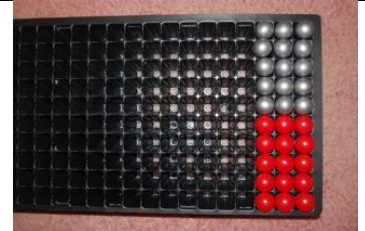


Figure 1

Whole Number Division Overview

1. The concept of the division of whole numbers will be modeled in both repeated subtraction and sharing form. Both are shown for they help the student understand when this operation is used in an application.

2. The division concept is first modeled as the repeated subtraction of a given set. Figure 2 illustrates the group to be divided. Figure 3 represents the number of sets formed when sets of a given size are repeatedly subtracted from the original set.

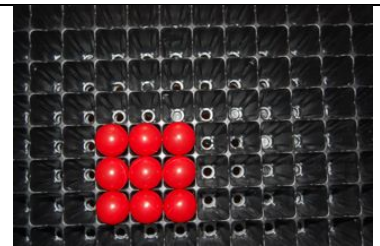


Figure 2

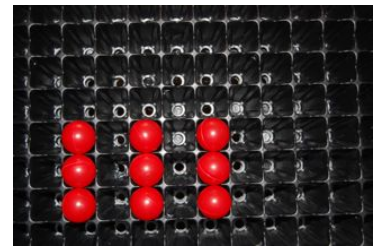


Figure 3

3. The concept of division is next modeled as equally sharing the original set in smaller equally sized groups. Figure 4 illustrates a set that is to be divided into equal parts. Figures 5, 6, and 7 represent the elements in the set being divided equally into two sets. Remind students that the operational procedure is still the same and that the only difference in the models is how the application is worded.

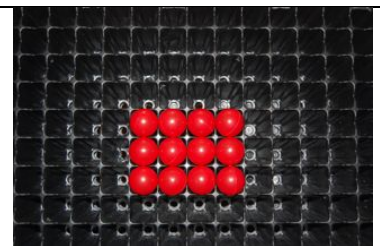


Figure 4

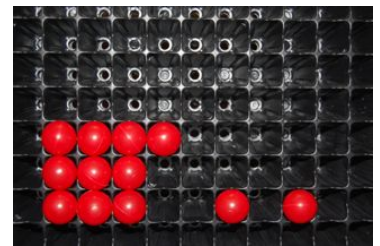


Figure 5

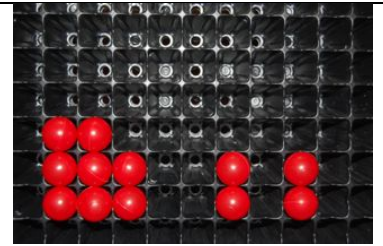


Figure 6

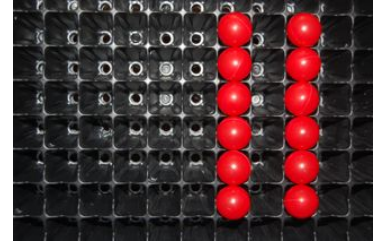


Figure 7

4. In all sections, the problems will be presented as word problems and solutions illustrated by the use of balls

5. All solutions are given in symbolic form with the accompanying written form.

Instruction Movie Sample Slide

Lesson Name

Problem

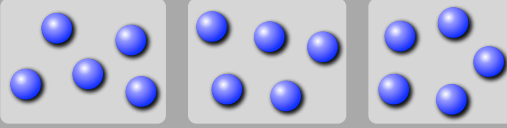
Written

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Division Repeated Subtraction

You have a fifteen foot board that you want to cut into five foot long pieces? How many five foot pieces will you have after it is cut?

If you cut a fifteen foot board into five foot long pieces, you will have three pieces.



1 2 3

$15 \div 5 = 3$

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Answer

Words

Manipulative

Symbols

Instruction Movie Sample Slide

Lesson Name

Problem

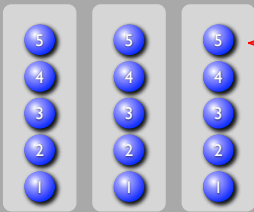
Written

Manipulative
(moved from)

Division Sharing

You have a fifteen foot board that you want to cut into three equal pieces. How long will each piece be?

If I have a fifteen foot board and cut it into three equal pieces, each piece will be five feet long.



1 2 3

$15 \div 3 = 5$

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Answer

Words

Manipulative

Symbols

Assessment Movie Sample Slide



Written Division Problem

Problem as
Drawing

Answer as
Drawing

Answer in
Symbols

Written Answer

4.)	<p>Twan had twenty-one flowers to plant in his flower bed. Twan wanted to plant three flowers to a row and decided he needed to make seven rows to plant the flowers. Was Twan correct? If not how many rows did he need to plant the flowers?</p>  <p>$21 \div 3 = 7$ or $\begin{array}{r} 7 \\ 3 \overline{)21} \end{array}$</p> <p>7</p> <p>Twan was right. He did need seven rows to plant his flowers.</p>
5.)	<p>Mark had twenty-five yards to cut. He could cut five yards each day. Mark thought that it would take him six days to cut all of the yards. Was Mark right? If not, how many days would it take to cut all of the yards?</p>  <p>$25 \div 5 = 5$ or $\begin{array}{r} 5 \\ 5 \overline{)25} \end{array}$</p> <p>5</p> <p>Mark was wrong. It would take five days.</p>