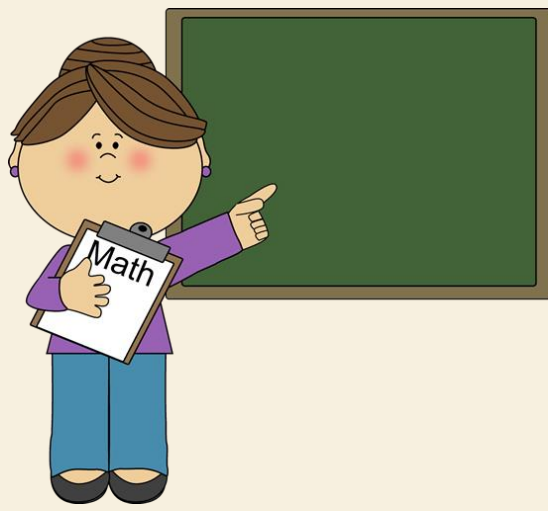


The image features a green-tinted background of students in a classroom. A white, scalloped-edged shape is centered on the page, containing the text 'AAP MATH GRADE 4' in a large, bold, black, rounded font. Below this shape, the text 'DAY 4' is written in a smaller, black, sans-serif font.

# AAP MATH GRADE 4

DAY 4



**This lesson is for Grade 4 AAP students.  
Today's lesson will consist of an opening, a  
problem of the day, a math activity, a  
Dreambox lesson, and a reflection piece.  
All assignments are due to your teacher.**

# STANDARD

## 4.NSBT.6

Divide up to a four-digit dividend by a one-digit divisor using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.

# I CAN STATEMENTS

- I can use partial quotients to divide multi-digit dividends by one-digit divisors.
- I can create and solve division word problems.

# ESSENTIAL QUESTIONS:

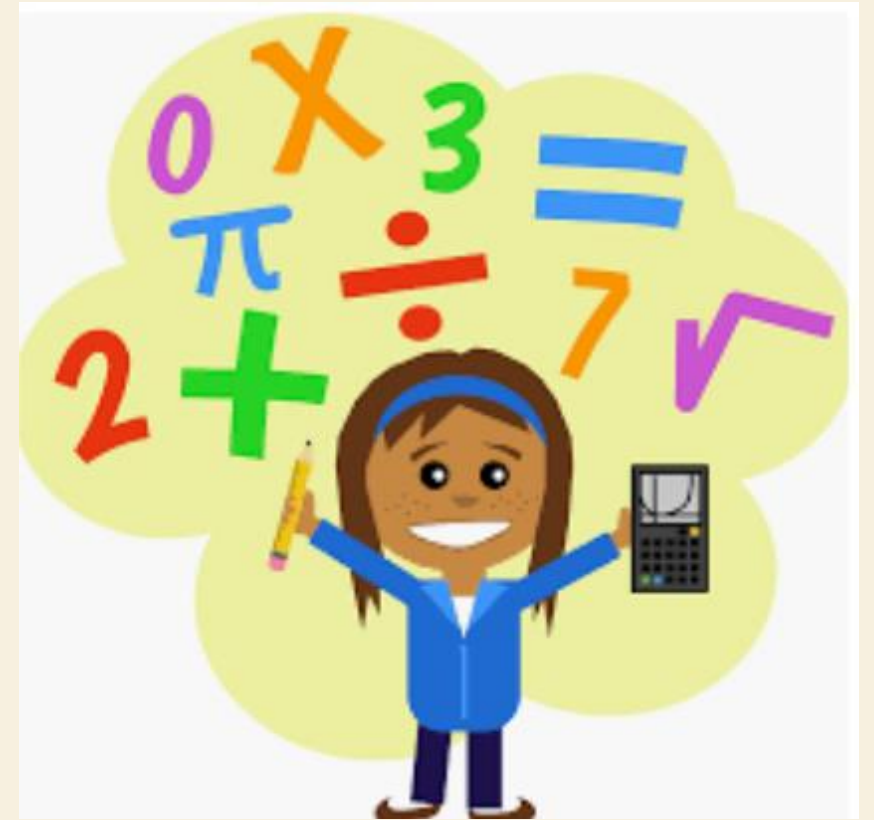
- What is the relationship between multiplication and division?
- What is the big idea of division?

## Materials and Resources:

- [Virtual Manipulatives \(if needed\)](#)
- Paper and Pencil
- Dreambox



# ACTIVITIES



# OPENING: GRADE 4 NUMBER ROUTINE

Without paper and pencil, determine if the following expressions are Over or Under 300?

- $624 \div 2$
- $13,124 \div 4$
- $6 \times 68$
- $15 \times 21$

# PROBLEM OF THE DAY

A class collected \$238 to be distributed equally to two charities. How much money will each charity receive? Use objects or draw pictures to help you solve this problem.







## Activities:

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#1 4.NSBT.6 Quick Review

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#2 Division Strategy: Partial Quotients

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#3 Complete assessment items 1-3.

# 4.NSBT.6 QUICK REVIEW

Here are some vocabulary words your child is using to communicate about division.

**quotient:** the answer to a division problem.

**dividend:** the number you divide in a division problem.

**divisor:** the number you divide by in a division problem.

Your child is learning to divide three-digit or four-digit numbers by a one-digit number. One way your child can solve a division problem is to find partial quotients. With this strategy, your child divides using place value. The division problem below shows how to divide 2,125 by 4.

$$\begin{array}{r} 6 \\ 25 \\ 500 \\ \hline 4 \overline{)2,125} \longrightarrow 1. \text{ How many groups of 4 in 2,000? } 500 \\ - 2,000 \longrightarrow 2. \text{ Subtract 500 groups of 4.} \\ \hline 125 \longrightarrow 3. \text{ How many groups of 4 in 100? } 25 \\ - 100 \longrightarrow 4. \text{ Subtract 25 groups of 4.} \\ \hline 25 \longrightarrow 5. \text{ How many groups of 4 in 25? } 6 \\ - 24 \longrightarrow 6. \text{ Subtract 6 groups of 4.} \\ \hline 1 \end{array}$$

The sum of the partial quotients is 531. The remainder is 1.

Altogether there are  $500 + 25 + 6$ , or 531 groups of 4 in 2,125, with one extra left over.  $2,125 \div 4 = 531 \text{ R}1$

## Division Strategy: Partial Quotients

**Materials:** Division Equations Board (3 digit dividend, one digit divisor)

1. Work with a partner. Choose a line of four problems from the board (vertically, horizontally or diagonally) that you will both solve. Solve each problem using the partial quotients strategy.

Step 1: Write a list of easy facts for the divisor.

Step 2: Subtract from the dividend an easy multiple of the divisor (e.g. 100x, 10x, 5x, 2x). Record the partial quotient in a column to the right of the problem.

Step 3: Repeat until the dividend has been reduced to zero or the remainder is less than the divisor.

Step 4: Add the partial quotients to find the quotient.

**Example:**  $826 \div 6$

Easy Facts for 6	
$2 \times 6 = 12$	$20 \times 6 = 120$
$3 \times 6 = 18$	$30 \times 6 = 180$
$5 \times 6 = 30$	$50 \times 6 = 300$
$10 \times 6 = 60$	$100 \times 6 = 600$

$$\begin{array}{r}
 137 \text{ r}4 \\
 6 \overline{) 826} \\
 \underline{-600} \\
 226 \\
 \underline{-180} \\
 46 \\
 \underline{-42} \\
 4
 \end{array}$$

100 x 6  
30 x 6  
7 x 6

2. Check your work with your partner. Repeat with another line of four problems.

$192 \div 6$	$724 \div 7$	$155 \div 5$	$129 \div 4$
$157 \div 7$	$373 \div 3$	$336 \div 6$	$209 \div 9$
$191 \div 5$	$242 \div 6$	$288 \div 9$	$180 \div 5$
$684 \div 6$	$163 \div 7$	$208 \div 6$	$428 \div 8$

# ASSESSMENT ITEM 1

A family of four drove from San Francisco to New York. They drove the same number of miles each day for 6 days. How many miles did they drive each day? How can you interpret the remainder?



# ASSESSMENT ITEM 2

Ron's Tires has 1,767 tires for heavy-duty trucks. Each heavy-duty truck needs 6 tires. How many heavy-duty trucks can get all new tires at Ron's?



# ASSESSMENT ITEM 3

Four fourth-grade classes from an elementary school took a trip to an art museum. There were 28 students in each class. At the museum, a maximum of 50 students were allowed on the tour at one time. What is the least number of tours needed so all the students were able to take a tour?



**FOR THE LAST PART OF TODAY'S LESSON, PLEASE GET ON DREAMBOX FOR 10 MINUTES.**



**REFLECTION: WHAT WAS ONE THING YOU DID WELL WITH TODAY'S LESSON?  
WHAT IS ONE THING YOU NEED ADDITIONAL HELP WITH?**



**GREAT JOB,  
MATHEMATICIANS!  
PLEASE MAKE SURE  
YOU HAVE  
WRITTEN DOWN  
YOUR ANSWERS TO  
EACH QUESTION  
FROM TODAY'S  
ACTIVITIES AND  
PLACE YOUR WORK  
IN YOUR BOOK BAG  
TO GIVE TO YOUR  
TEACHER WHEN  
YOU RETURN TO  
SCHOOL.**

