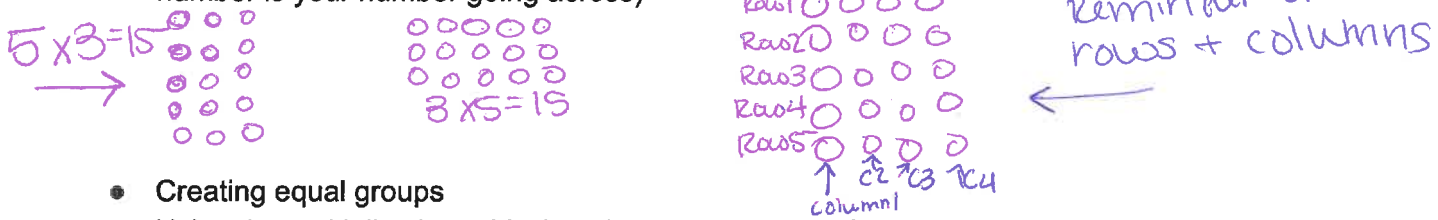
* Weekly Overview/Review Letter *

This week we will be working with properties of multiplication, multiplication and division strategies, trying to recognize patterns, and solving word problems by using multiplication and division stratedgies. Please remember to practice your math facts for 10-15 minutes a day in addition to the assignment

Strategies include-

- Skip counting
- Arrays (when making the arrays, the first factor is the number going down, the second number is your number going across)



- Creating equal groups
- Using the multiplication table (not the best as it doesn't help them know how to solve the problem. However, knowing how to read the table is a valuable skill because it will help them read and interpret different charts and graphs in the future)
- Using the fact family
- Repeated addition

Properties of Multiplication

Property Name	**Description**	**Example**
Assosiative	You can goup your factors in different ways and still get the same product	2 x (3 x 4) =24 (2 x 3) x 4= 24 (4 x 2) x 3= 24
Commutative	When you change the order of the factors the product stays the same	3 x 8= 24 and 8 x 3= 24
Distributive	A problem can be broken up in to the sum of 2 smaller factors	8 x 6= (8x5) + (8x1) One factor stayed the same, while the other factor was broken up to smaller pieces . In our example the factor 6 was broken up to 5 and 1. 5+1= 6
Identity	The product of any number and 1 = that number	4 x 1=4
Zero	The product of any number and zero =0	788 x 0=0

Multiplying with 2, 5, and 10

Name: Monday

Multiply.

1 $5 \times 2 =$ _____ 2 $2 \times 5 =$ _____ 3 $2 \times 10 =$ _____ 4 $10 \times 2 =$ _____

5 $10 \times 5 =$ _____ 6 $5 \times 10 =$ _____ 7 $6 \times 2 =$ _____ 8 $2 \times 6 =$ _____

9 $3 \times 10 =$ _____ 10 $10 \times 3 =$ _____ 11 $7 \times 2 =$ _____ 12 $2 \times 7 =$ _____

13 $4 \times 10 =$ _____ 14 $10 \times 4 =$ _____ 15 $5 \times 4 =$ _____ 16 $4 \times 5 =$ _____

17 $2 \times 2 =$ _____ 18 $5 \times 5 =$ _____ 19 $10 \times 10 =$ _____

20 What patterns do you notice in the problems? Explain.

21 Draw a model to show how you solved one of the problems.

Understanding of Multiplication Models

Name: Monday

1 Show 3×5 by drawing equal groups of 5.

Show 3×5 by drawing an array.

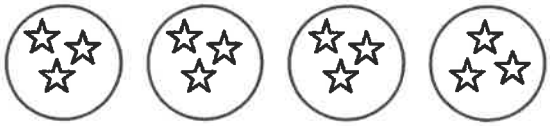
Complete the equation. $3 \times 5 =$ _____

2 Write an equation that matches the array.

△△△△△△
△△△△△△

_____

3 Write an equation that matches the picture.



_____

4 Use words to describe the drawing for problem 3.

Understanding of Patterns

Name: Tuesday

Solve. Look for patterns.

1 Subtract.

$10 - 1 =$ _____	$20 - 1 =$ _____	$30 - 1 =$ _____
$100 - 1 =$ _____	$200 - 1 =$ _____	$300 - 1 =$ _____
$200 - 100 =$ _____	$300 - 100 =$ _____	$400 - 100 =$ _____
$200 - 101 =$ _____	$300 - 101 =$ _____	$400 - 101 =$ _____

2 Multiply.

$2 \times 10 =$ _____	$2 \times 9 =$ _____
$3 \times 10 =$ _____	$3 \times 9 =$ _____
$4 \times 10 =$ _____	$4 \times 9 =$ _____
$5 \times 10 =$ _____	$5 \times 9 =$ _____
$6 \times 10 =$ _____	$6 \times 9 =$ _____
$7 \times 10 =$ _____	$7 \times 9 =$ _____
$8 \times 10 =$ _____	$8 \times 9 =$ _____
$9 \times 10 =$ _____	$9 \times 9 =$ _____

3 Describe the patterns that you notice in the problems you just solved.

Using Order to Multiply

Name: Tuesday

Write the missing numbers in the boxes to make each multiplication problem true.

$5 \times 6 = \square$	$2 \times 6 = \square$	$4 \times 5 = \square$
$6 \times 5 = \square$	$6 \times 2 = \square$	$5 \times 4 = \square$
$3 \times 8 = \square$	$4 \times 7 = \square$	$5 \times 9 = \square$
$8 \times 3 = \square$	$7 \times 4 = \square$	$9 \times 5 = \square$
$9 \times 2 = \square$	$\square \times 5 = 15$	$7 \times 8 = \square$
$2 \times \square = 18$	$5 \times 3 = \square$	$\square \times 7 = 56$
$\square \times 10 = 70$	$\square \times 5 = 10$	$3 \times \square = 12$
$10 \times \square = 70$	$5 \times \square = 10$	$\square \times 3 = 12$

1 Look at 6×5 and 5×6. How does the order of the factors change the product?

2 Draw two arrays to show 4×7 and 7×4.

(3) What property states that you can change the order of the factors and the product stays the same?

*Associative property, *commutative property or distributive property

Using a Multiplication Table

Name: Wednesday

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Use the multiplication table to solve

Write the missing numbers in the boxes to make each multiplication or division problem true.

$5 \times 7 = \square$ $\quad$ $32 \div 8 = \square$ $\quad$ $4 \times 7 = \square$ $\quad$ $27 \div \square = 9$

$\square \div 5 = 7$ $\quad$ $8 \times \square = 32$ $\quad$ $\square \div 4 = 7$ $\quad$ $9 \times \square = 27$

$4 \times 4 = \square$ $\quad$ $9 \times 6 = \square$ $\quad$ $6 \times 6 = \square$ $\quad$ $81 \div \square = 9$

$\square \div 4 = 4$ $\quad$ $54 \div \square = 6$ $\quad$ $63 \div \square = 9$ $\quad$ $40 \div 8 = \square$

$\square \div 8 = 6$ $\quad$ $56 \div \square = 8$ $\quad$ $45 \div 5 = \square$ $\quad$ $\square \div 7 = 7$

1 Write 3 possible answers for the equation $36 \div \square = \square$.

Using Grouping to Multiply

Name: Wednesday

Draw parentheses around the numbers you want to multiply first. Then find the product.

1 $6 \times 3 \times 2$

$6 \times (3 \times 2)$

$6 \times 6 = 36$

Sample Student Work:

$3 \times 2 = 6; 6 \times 6 = 36$

2 $4 \times 3 \times 3$

3 $5 \times 2 \times 8$

4 $8 \times 2 \times 4$

5 $2 \times 2 \times 7$

6 $6 \times 5 \times 2$

7 $3 \times 3 \times 7$

8 $2 \times 4 \times 5$

9 $7 \times 4 \times 2$

10 $6 \times 3 \times 3$

11 $3 \times 3 \times 10$

12 $2 \times 3 \times 4$

13 How did you decide which factors to group?

14 Choose one problem. Tell two ways you can group the factors. Then explain which way is easier for you to solve.

Solving Problems About Equal Groups

Name: Thursday

Read and solve each problem. Show your work.

1 Heather has 18 photographs of rockets. She wants to hang them on 3 different walls in her room. Each wall will have the same number of photographs. How many photographs will hang on each wall?

There will be _____ photographs on each wall.

2 There are 24 people who want to play volleyball. The coach divides the players into teams of 6. How many teams can she make?

The coach can make _____ teams.

3 At an art show, there are 7 groups of paintings with 6 paintings in each group. How many paintings are there in all?

There are _____ paintings.

4 Jasmine reads for 10 minutes each night. If she reads for 5 nights, how many minutes will she read in all?

Jasmine will read for _____ minutes.

5 Rhonda plants 28 tomato plants in her garden. She plants 7 tomato plants in each row. How many rows does she plant?

Rhonda plants _____ rows.

6 Mr. Jones buys 6 packages of pencils. There are 8 pencils in each package. How many pencils does Mr. Jones buy?

Mr. Jones buys _____ pencils.

7 Choose one problem. Describe the strategy you used to solve it.