

Grade Level/Course: Grade 3
Lesson/Unit Plan Name: Mastering the Multiplication Table through Student Talk
Rationale/Lesson Abstract: Students are given the opportunity to identify and explain common patterns and relationships within a multiplication chart.
Timeframe: 1 hour
Common Core Standard(s): 3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. This standard calls for students to examine arithmetic patterns involving both addition and multiplication. Arithmetic patterns are patterns that change by the same rate. For example, the series 2, 4, 6, 8, 10 on a multiplication chart is an arithmetic pattern that increases by 2 between each term, they have a common multiple of 2, the two factors are always even, and as a product (even), 2 even factors always produce an even product. This standards also mentions identifying patterns related to the properties of operations. Examples: <i>When (commutative property) one changes the order of the factors they will still gets the same product, example $6 \times 5 = 30$ and $5 \times 6 = 30$.</i>

Instructional Resources/Materials:

1 copy of each page –cut to separate each problem for gallery walk activity

Activity/Lesson:

GUIDED PRACTICE:

Use Whole Class Examples 1-4 to discover patterns, properties and investigation of the multiplication chart.

Students should use complete sentences when explaining what they have discovered. (i.e. This is an example of the Identity Property of Multiplication. I know this because the Identity Property of Multiplication states that when a factor is multiplied by 1, the product will be that factor. For example $10 \times 1 = 10$).

PARTNER PRACTICE:

GALLERY WALKS ARE A GREAT WAY TO ELICITE STUDENT TALK, AS WELL AS PROVIDING MULTIPLE OPPORTUNITIES FOR PRACTICE IN A SHORT PERIOD OF TIME. THIS BEING SO BECAUSE, STUDENTS SUPPORT EACH OTHER THROUGH PARTNER WORK, THE USE OF A TIMER, AND MOVEMENT IN THE CLASSROOM WHICH ALL ELIMINATES OFF TASK BEHAVIORS. ERROR CAN BE QUICKLY CORRECTED BY A TEACHER OR PARTNER AND THERE IS NO WORK TO CORRECT FOLLOWING THE LESSON BECAUSE OF THE CONSTANT OBSERVATION/CORRECTIONS BEING MADE THROUGHOUT THE PARTNER PRACTICE.

1-16 are used for Gallery Walk/Partner work. After whole class guided practice, questions are placed in a clockwise pattern around the perimeter of the classroom. Students work in pairs to investigate and answer each multiplication chart question. At the teacher signal, students will rotate to the next question (approx. 2 minutes per question), until all questions have been completed. **As the teacher, you will rotate and can quickly bypass those students that are completing the task easily and help those that need more assistance.**

EXIT TICKET- to provide the teacher with information on a students ability to process the information independently of a partner and asked in an alternative format of the daily practice.

WHAT IS IT I WANT MY STUDENTS TO RECOGNIZE IN EACH OF THE MULTIPLICATION CHARTS PROVIDED IN THE LESSON:

Whole Class #1: The orange highlighted patterns are examples of the **Identity Property of Multiplication**. I know this because the Identity Property of Multiplication states that any factor multiplied by one is that same factor. For example I can show on the multiplication chart that $1 \times 7 = 7$ and $9 \times 1 = 9$.

Whole Class #1 part 2: The purple highlighted patterns are examples of the **Commutative Property of Multiplication**. I know this because the Commutative Property of Multiplication states that the order of the factors does not change the product. For example I can show on the multiplication chart that $9 \times 7 = 63$ and $7 \times 9 = 63$.

Whole Class #2: The yellow highlighted column shows skip counting by 5. I know this because they keep adding 5 to the previous number i.e. 5 plus 5 is 10 and 10 plus 5 is 15, etc. (multiplication is repeated addition)

Whole Class #2 part 2: The green highlighted column shows skip counting by 9. I know this because they keep adding 9 to the previous number i.e. 9 plus 9 is 18 and 18 plus 9 is 27, etc. (multiplication is repeated addition)

Whole Class #3:

Even $\times$ Odd = Even	Even $\times$ Even = Even
$2 \times 1 = 2$	$2 \times 3 = 6$
$6 \times 3 = 18$	$8 \times 2 = 16$
$10 \times 1 = 10$	
$10 \times 3 = 30$	

Whole Class #4 : Odd times Odd is always Odd

GALLERY WALK/PARTNER PRACTICE

- 1: Commutative Property of Multiplication $7 \times ? = ? \times 7$, any examples that have a common factor 7
- 2: Identity Property of Multiplication, any example in which one of the factors is one.
- 3: Skip-counting by 10, or repeated addition of 10
- 4: Skip- counting by 3, or repeated addition of 3
- 5: $3 \times 6 = 18$, odd $\times$ even = even
- 6: $12 \times 2 = 24$, even $\times$ even = even
- 7: Commutative Property of Multiplication $4 \times ? = ? \times 4$, any examples that have a common factor 4
- 8: Skip-counting by 9, or repeated addition of 9
- 9: Skip-counting by 8, or repeated addition of 8
- 10: Skip-counting by 5, or repeated addition of 5
- 11: $3 \times 9 = 27$ odd $\times$ odd = odd
- 12: $9 \times 6 = 54$, odd $\times$ even = even
- 13: $1 \times 11 = 11$ odd $\times$ odd = odd
- 14: $7 \times 6 = 42$, odd $\times$ even = even
- 15: $12 \times 6 = 72$, even $\times$ even = even
- 16: $4 \times 9 = 36$, even $\times$ odd = even

NAME _____

EXIT TICKET

GIVE AN EXAMPLE OF THE COMMUTATIVE PROPERTY OF MULTIPLICATION

IN MULTIPLICATION, THE PRODUCT OF ODD NUMBER TIMES AN ODD NUMBER IS ALWAYS _____

IN MULTIPLICATION, THE PRODUCT OF ODD NUMBER TIMES AN EVEN NUMBER IS ALWAYS _____

IN MULTIPLICATION, THE PRODUCT OF EVEN NUMBER TIMES AN EVEN NUMBER IS ALWAYS _____

Whole Class Practice:

EX. 1

Looking at the multiplication chart on the right, what Property of Multiplication would be used to describe each of the highlighted columns?

Give examples of each property from the highlighted columns.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Whole Class Practice:

EX. 2

Looking at the multiplication chart on the right, identify each of the highlighted patterns.

Can you find the same pattern on another place on the chart?

How do patterns help us in multiplication?

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Whole Class Practice:

EX. 3

Looking at the multiplication chart on the right, we can see that **all the highlighted products are what, odd or even?**

Now look at the factors for each of those products. Are those factors odd, even or both odd and even?

Can we make a statement or statements about what type of numbers are multiplied to get an even product?

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Whole Class Practice:

EX. 4

Looking at the multiplication chart on the right, we can see that **all the highlighted products are what, odd or even?**

Now look at the factors for each of those products. Are those factors odd, even or both odd and even?

Can we make a statement about what type of numbers are multiplied to get an odd product?

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#1

Looking at the multiplication chart on the right, what **Property of Multiplication** would be used to describe each of the highlighted columns?

Give 2 examples of the property from the highlighted columns.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#2

Looking at the multiplication chart on the right, what **Property of Multiplication** would be used to describe each of the highlighted columns?

Give 2 examples of the property from the highlighted columns.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#3

Looking at the multiplication chart on the right, identify the highlighted pattern by telling what they are skip- counting by.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

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Gallery Walk/Partner Practice

#4

Looking at the multiplication chart on the right, identify the highlighted pattern by telling what they are skip- counting by.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

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Gallery Walk/Partner Practice

#5

Looking at the multiplication chart on the right **find the highlighted product.**

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} & = & \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#6

Looking at the multiplication chart on the right **find the highlighted product.**

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} & = & \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#7

Looking at the multiplication chart on the right, what **Property of Multiplication** would be used to describe each of the highlighted columns?

Give 2 examples of the property from the highlighted columns.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#8

Looking at the multiplication chart on the right, identify the highlighted pattern by telling what they are skip- counting by.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#9

Looking at the multiplication chart on the right, identify the highlighted pattern by telling what they are skip- counting by.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

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Gallery Walk/Partner Practice

#10

Looking at the multiplication chart on the right, identify the highlighted pattern by telling what they are skip- counting by.

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

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Gallery Walk/Partner Practice

#11

Looking at the multiplication chart on the right **find the highlighted product**.

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} = \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#12

Looking at the multiplication chart on the right **find the highlighted product**.

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} = \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#13

Looking at the multiplication chart on the right **find the highlighted product**.

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} & = & \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#14

Looking at the multiplication chart on the right **find the highlighted product**.

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} & = & \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#15

Looking at the multiplication chart on the right **find the highlighted product**.

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} & = & \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Gallery Walk/Partner Practice

#16

Looking at the multiplication chart on the right **find the highlighted product**.

Write each factor and the product, then identify each as odd or even.

Example:

$$\begin{array}{ccc} 2 & 2 & 4 \\ \text{_____} \times \text{_____} & = & \text{_____} \end{array}$$

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144