

Name _____

3rd Grade Summer Math Calendar

Complete a math fluency activity (see attached) and a word problem each day, from Monday to Thursday. Complete a sprint or pattern sheet on Fridays. Draw an X over the box for each day you do the work.

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Fluency: Multiplication Word Problem: A teacher has 24 students in her class. She wants to place the students into groups with an equal number in each group. How many different ways can the teacher group the students?	Fluency: Equal Groups Word Problem: Sam rolled two dice and multiplied the results. He got a product that was an even number. What numbers might Sam have rolled?	Fluency: Commutative Multiplying Word Problem: Choose one of the following numbers: 12, 24, or 36. Suppose that this number of musicians in a marching band were getting ready for a parade. How many different ways could the musicians arrange themselves into equal rows? Record your thinking using arrays, numbers or words.	Fluency: Tape Diagrams Word Problem: I multiplied two odd numbers and got a product that was less than thirty. What might the two odd numbers have been?	Complete Sprint 1.
Week 2	Fluency: Tens (without Hide Zero Cards) Word Problem: There are 16 apples to be put into bowls. Each bowl must have the same number of apples. Show as many different solutions as you can.	Fluency: Tens and Hundreds Word Problem: Use the numbers 3, 6, and 18. Write a multiplication story and a related division story. Write a number sentence for each story.	Fluency: Make Twenty-Four Game (you may use attached card set) Word Problem: Write your own multiplication story for 12 x 6 and tell how you solved the problem. What other strategies could you have used to solve this problem?	Fluency: Write in Parentheses Word Problem: I solved a multiplication number story and got an answer of 16. What might the number story have been?	Complete Sprint 2.

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 3	<p>Fluency: Round Three- and Four-Digit Numbers</p> <p>Word Problem: I solved a division number story and got an answer of 7. What might the number story have been?</p>	<p>Fluency: Partition Shapes</p> <p>Word Problem: The product of two numbers is 24 and their sum is less than 15. What might the two numbers be?</p>	<p>Fluency: Write the Unit Fraction</p> <p>Word Problem: The answer to a division question is 3. What might the question be? Record as many different solutions as you can.</p>	<p>Fluency: Greater or Less than 1?</p> <p>Word Problem: I had \$1.00. I went to the store to buy 2 pencils. Each pencil cost 29 cents. How much did the pencils cost in all? How much change did I get back? Show two possible change combinations that I might have got back.</p>	Complete Pattern Sheet 1.
Week 4	<p>Fluency: Draw Fractions from Part to Whole</p> <p>Word Problem: Nancy baked 4 trays of muffins. Each tray held 6 muffins. She took 15 muffins to school for the bake sale and left the rest at home to share with her family. How many muffins did Nancy leave at home?</p>	<p>Fluency: Draw Number Bonds of One</p> <p>Word Problem: Record a number sequence of at least ten numbers where each number is four more than the previous number.</p>	<p>Fluency: Multiplication</p> <p>Word Problem: Record a number sequence of at least ten numbers where each number is three less than the previous number.</p>	<p>Fluency: Equal Groups</p> <p>Word Problem: Create a two-step number pattern that uses both addition and subtraction. Try to include at least 10 numbers in the sequence. Explain the rule for your number pattern.</p>	Complete Pattern Sheet 2.
Week 5	<p>Fluency: Commutative Multiplying</p> <p>Word Problem: Choose one of these numbers: 2, 3, 5 or 6. After you pick your number double it, and then double the sum. Continue until you get a sum that is greater than 1000. How close to 1000 is the number you reached?</p>	<p>Fluency: Tape Diagrams</p> <p>Word Problem: How many different 3-digit numbers can you make using the digits 1, 6, and 9? Order your numbers. What is the difference between the largest and smallest numbers you made?</p>	<p>Fluency: Tens (without Hide Zero Cards)</p> <p>Word Problem: I added two three-digit numbers and got a correct answer of 748. What might the two numbers be?</p>	<p>Fluency: Tens and Hundreds</p> <p>Word Problem: Using all of the digits 4, 5, 6, 7, 8, 9 and any operations, what numbers can you make?</p>	Complete Pattern Sheet 3.

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 6	<p>Fluency: Make Twenty-Four Game</p> <p>Word Problem: Three friends shared two pizzas equally. How much of the pizza did each person get? Explain your thinking.</p>	<p>Fluency: Write in Parentheses</p> <p>Word Problem: Tom had a large candy bar. He cut it into pieces so that he could share it equally with his best friend. Show different ways Tom might have cut the candy bar. Label each part as a fraction.</p>	<p>Fluency: Round Three- and Four-Digit Numbers</p> <p>Word Problem: Sarah ate $\frac{1}{4}$ of the cherries in her snack box. How many cherries might have been in Sarah's snack box? How many might she have eaten?</p>	<p>Fluency: Partition Shapes</p> <p>Word Problem: Which is larger, $\frac{1}{4}$ or $\frac{3}{8}$? Explain your reasoning.</p>	Complete Sprint 3.
Week 7	<p>Fluency: Write the Unit Fraction</p> <p>Word Problem: Place the following fractions on a number line that begins with 0 and ends with 1. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{2}{4}$ Explain your reasoning.</p>	<p>Fluency: Greater or Less than 1?</p> <p>Word Problem: Draw 3 clock faces on your page. On your clocks show one time that is quarter past the hour, one that is half past the hour and one that is quarter to the hour. For each clock write the time it would be one hour earlier and one hour later.</p>	<p>Fluency: Draw Fractions from Part to Whole</p> <p>Word Problem: Mr. Smith arrived at work at 9.15 a.m. If he spent 35 minutes traveling to work what time did he leave home? Explain your thinking.</p>	<p>Fluency: Draw Number Bonds of One</p> <p>Word Problem: I left school after 3.15 p.m., walked for 25 minutes and was home before 3.45 p.m. What time might I have left school? What time might I have arrived home? Represent two possible solutions on a number line diagram.</p>	Complete Sprint 4.
Week 8	<p>Fluency: Multiplication</p> <p>Word Problem: Write an elapsed time word problem. (I started walking at _____ and walked for _____ minutes.) Represent the solution to your problem on an empty number line.</p>	<p>Fluency: Equal Groups</p> <p>Word Problem: List 3 classroom objects that you estimate weigh a) less than one kilogram, b) more than one kilogram, c) about one kilogram. Explain your thinking.</p>	<p>Fluency: Commutative Multiplying</p> <p>Word Problem: A shopkeeper put one kilogram of peanuts into two bags that were not equal. How many grams of peanuts might the shopkeeper have placed in each bag?</p>	<p>Fluency: Tape Diagrams</p> <p>Word Problem: I poured one liter of juice into three containers that were not equal. How many milliliters of juice might I have poured into each container?</p>	Complete Pattern Sheet 4.

Monday	Monday	Tuesday	Wednesday	Thursday	Friday
Week 9	<p>Fluency: Tens (without Hide Zero Cards)</p> <p>Word Problem: Sort a small packet of M&Ms by color. Represent your data in a bar graph. Be sure to include a title, labels, and scale. Write 3-5 statements describing your data.</p>	<p>Fluency: Tens and Hundreds</p> <p>Word Problem: Mr. Brown is designing a fence to go around the perimeter of a vegetable patch. He has 30 meters of fencing. What are some possible designs?</p>	<p>Fluency: Make Twenty-Four Game</p> <p>Word Problem: How many different rectangles can you draw with an area of 16 square cm? (Drawings need not be to scale.)</p>	<p>Fluency: Write in Parentheses</p> <p>Word Problem: A rectangle has a perimeter of 18 cm. What might its area be? Show as many different solutions as you can.</p>	Complete Sprint 5.
Week 10	<p>Fluency: Round Three- and Four-Digit Numbers</p> <p>Word Problem: A rectangle has an area of 20 square cm. What might its perimeter be? Show as many different solutions as you can.</p>	<p>Fluency: Partition Shapes</p> <p>Word Problem: A shape made from two rectangles has an area of 24 square feet. What might this shape look like?</p>	<p>Fluency: Write the Unit Fraction</p> <p>Word Problem: Draw two different quadrilaterals. How are these shapes alike? How are they different?</p>	<p>Fluency: Greater or Less than 1?</p> <p>Word Problem: Sarah ate $\frac{1}{4}$ of a large pizza. Ben ate $\frac{1}{4}$ of a small pizza. Did they eat the same amount? Explain your thinking.</p>	Complete Sprint 6.

FLUENCY ACTIVITIES

Multiplication

Materials: (S) Personal white boards

- T: (Draw an array with 3 rows of 2.) Say the repeated addition sentence.
 S: $2 + 2 + 2 = 6$.
 T: (Write $3 \times \underline{\quad} = \underline{\quad}$.) On your personal board, complete the multiplication sentence.
 S: (Write $3 \times 2 = 6$.)

Repeat using the following ideas: 4 rows of 10, 3 rows of 4, 7 rows of 3, and 8 rows of 2. Or, you can think of your own.

Equal Groups

Materials: (S) Personal white boards

- T: (Draw a picture with 2 groups of 4 circled.) Say the total as a repeated addition sentence.
 S: $4 + 4 = 8$.
 T: Write a division sentence that means the number of groups is unknown.
 S: (Write $8 \div 4 = 2$.)
 T: Below that division sentence write a division sentence that means the number in each group is unknown.
 S: (Write $8 \div 2 = 4$.)

Repeat using the following ideas: 5 groups of 3, 3 groups of 4, and 6 groups of 2. Or, you can think of your own.

Commutative Multiplying

Materials: (S) Personal white boards

- T: (Draw an array with 3 rows of 2 dots.) How many rows of 2 do you see?
 S: 3 rows of 2.
 T: Write four different multiplication sentences for the picture.
 S: (Write $3 \times 2 = 6$, $2 \times 3 = 6$, $6 = 3 \times 2$, $6 = 2 \times 3$.)

Repeat using the following ideas: 3 rows of 5, and 4 rows of 3. Or, you can think of your own.

- T: (Write $4 \times 2 = 2 \times \underline{\quad}$.) On your board, fill in the blank.
 S: (Write $4 \times 2 = 2 \times 4$.)

Repeat using the following ideas: $9 \times 5 = 5 \times \underline{\quad}$ and $3 \times 6 = 6 \times \underline{\quad}$. Or, you can think of your own.

Tape Diagrams

Materials: (S) Personal white boards

- T: (Draw a tape diagram with 5 equal units and 2 stars in the first unit.) What is the value of each unit?
 S: 2 stars.
 T: How many units are there?
 S: 5 units.
 T: Write a multiplication sentence for this tape diagram.
 S: (Write $5 \times 2 = 10$.)

Repeat using the following ideas: $4 \times 3 = 12$, $8 \div 4 = 2$, and $15 \div 3 = 5$. Or, you can think of your own.

Tens

Materials: (S) Hide Zero Cards, personal white boards

Note: Hide Zero Cards can be made with index cards for personal practice.

T: (Write 7 tens = ____.) Say the number.

S: 70.

Repeat using the following ideas: 10 tens, 12 tens, 20 tens, 28 tens, 30 tens, and 37 tens. Or, you can think of your own.

70

150

Hide Zero Cards

Tens and Hundreds

Materials: (S) Personal white boards

T: (Write $9 + \underline{\quad} = 10$.) Say the missing number.

S: 1.

T: (Write $90 + \underline{\quad} = 100$.) Say the missing number.

S: 10.

T: (Write $91 + \underline{\quad} = 100$.) Say the missing number.

S: 9.

T: (Write $291 + \underline{\quad} = 300$.) Say the missing number.

S: 9.

Repeat using the following ideas:

$1 + \underline{\quad} = 10$, $10 + \underline{\quad} = 100$, $11 + \underline{\quad} = 100$, $211 + \underline{\quad} = 300$,

$8 + \underline{\quad} = 10$, $80 + \underline{\quad} = 100$, $85 + \underline{\quad} = 100$, and $385 + \underline{\quad} = 400$

Or, you can think of your own.

Make Twenty-Four Game

Materials: Set of 6 cards per pair

Note: Students play in pairs. Each pair has a set of 6 cards, each with a number (2, 3, 4, 6, 8, and 12).

T: (Write $\underline{\quad} \times \underline{\quad} = 24$.) Spread the cards out in front of you.

T: Put your hands behind your back. I'll put a number in the first blank. When you know the number that belongs in the second blank, touch the card that shows the number. The first one of us to touch the card keeps it. Whoever has the most cards at the end wins. (Write 12 in the first blank.)

S: (Touch the 2 card. The first to touch it keeps the card.)

Repeat but this time, you might make 36 with the same cards plus 9 and 18.

Write In the Parentheses

Materials: (S) Personal white boards

T: (Write $10 - 5 + 3 = 8$.) On your board, copy the equation. Then, insert parentheses to make the statement true.

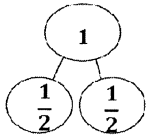
S: (Write $(10 - 5) + 3 = 8$.)

Repeat using the following ideas:

$10 - 5 + 3 = 2$, $10 = 20 - 7 + 3$, $16 = 20 - 7 + 3$,

$8 + 2 \times 4 = 16$, $8 + 2 \times 4 = 40$, $12 = 12 \div 2 \times 2$, $3 = 12 \div 2 \times 2$, $10 = 35 - 5 \times 5$, and $20 - 10 \div 5 = 2$.

Or, you can think of your own.

<p>Round Three- and Four-Digit Numbers (4 minutes)</p> <p>Materials: (S) Personal white boards</p> <p>T: (Write $87 \approx \underline{\quad}$.) What is 87 rounded to the nearest ten?</p> <p>S: 90.</p> <p>Repeat using the following ideas: 97, 43, 643, 35, and 865. Or, you can think of your own.</p> <p>T: (Write $253 \approx \underline{\quad}$.) What is 253 rounded to the nearest hundred?</p> <p>S: 300</p> <p>Repeat using the following ideas: 253, 1253, 735, 1735, 850, 1850, 952, 1371, and 1450. Or, you can think of your own.</p>	<p>Partition Shapes</p> <p>Materials: (S) Personal white boards</p> <p>T: Draw a square.</p> <p>S: (Draw square.)</p> <p>T: (Write $\frac{1}{2}$.) Estimate to equally partition the square into halves.</p> <p>S: (Partition.)</p> <p>Repeat using the following ideas: line $\frac{1}{5}$, circle $\frac{1}{4}$, circle $\frac{1}{8}$, bar $\frac{1}{10}$, and bar $\frac{1}{6}$.</p> <p>Or, you can think of your own.</p>
<p>Write the Unit Fraction</p> <p>Materials: (S) Personal white boards</p> <p>T: (Draw a shape with $\frac{1}{2}$ shaded.) Write the unit fraction.</p> <p>S: (Write $\frac{1}{2}$.)</p> <p>Repeat using the following ideas: $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{6}$, $\frac{1}{10}$, and $\frac{1}{5}$.</p> <p>Or, you can think of your own.</p>	<p>Greater or Less than 1?</p> <p>T: (Write $\frac{1}{2}$.) Greater or less than 1?</p> <p>S: Less!</p> <p>Repeat using the following ideas: $\frac{3}{2}$, $\frac{5}{4}$, $\frac{3}{4}$, $\frac{3}{7}$, $\frac{5}{3}$, and $\frac{5}{2}$.</p> <p>Or, you can think of your own.</p>
<p>Draw Fractions from Part to Whole</p> <p>Materials: (S) Personal white boards</p> <p>T: Draw 1 unit on your personal board.</p> <p>S: (Draw 1 unit.)</p> <p>T: Label the unit $\frac{1}{3}$. Now, draw the whole that goes with your unit of $\frac{1}{3}$.</p> <p>Repeat using the following ideas: $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{4}$, and $\frac{1}{2}$.</p> <p>Or, you can think of your own.</p>	<p>Draw Number Bonds of One</p> <p>Materials: (S) Personal white boards</p>  <p>T: Draw a number bond to partition one into halves.</p> <p>S: (Write.)</p> <p>T: How many copies of 1 half did you draw to make one?</p> <p>S: 2 copies.</p> <p>Repeat with the following ideas: thirds, fourths, fifths, sixths, sevenths, etc. Or, you can think of your own.</p>

"MAKE TWENTY-FOUR" GAME CARDS

2

3

4

6

8

12

SPRINT #1
(week 1)**A**

Correct _____

Solve.

1	$2 \times 2 =$		23	$___ \times 2 = 20$	
2	$3 \times 2 =$		24	$___ \times 2 = 4$	
3	$4 \times 2 =$		25	$___ \times 2 = 6$	
4	$5 \times 2 =$		26	$20 \div 2 =$	
5	$1 \times 2 =$		27	$10 \div 2 =$	
6	$4 \div 2 =$		28	$2 \div 1 =$	
7	$6 \div 2 =$		29	$4 \div 2 =$	
8	$10 \div 2 =$		30	$6 \div 2 =$	
9	$2 \div 1 =$		31	$___ \times 2 = 12$	
10	$8 \div 2 =$		32	$___ \times 2 = 14$	
11	$6 \times 2 =$		33	$___ \times 2 = 18$	
12	$7 \times 2 =$		34	$___ \times 2 = 16$	
13	$8 \times 2 =$		35	$14 \div 2 =$	
14	$9 \times 2 =$		36	$18 \div 2 =$	
15	$10 \times 2 =$		37	$12 \div 2 =$	
16	$16 \div 2 =$		38	$16 \div 2 =$	
17	$14 \div 2 =$		39	$11 \times 2 =$	
18	$18 \div 2 =$		40	$22 \div 2 =$	
19	$12 \div 2 =$		41	$12 \times 2 =$	
20	$20 \div 2 =$		42	$24 \div 2 =$	
21	$___ \times 2 = 10$		43	$14 \times 2 =$	
22	$___ \times 2 = 12$		44	$28 \div 2 =$	

B

Improvement _____

Correct _____

Solve.

1	$1 \times 2 =$		23	$__ \times 2 = 4$	
2	$2 \times 2 =$		24	$__ \times 2 = 20$	
3	$3 \times 2 =$		25	$__ \times 2 = 6$	
4	$4 \times 2 =$		26	$4 \div 2 =$	
5	$5 \times 2 =$		27	$2 \div 1 =$	
6	$6 \div 2 =$		28	$20 \div 2 =$	
7	$4 \div 2 =$		29	$10 \div 2 =$	
8	$8 \div 2 =$		30	$6 \div 2 =$	
9	$2 \div 1 =$		31	$__ \times 2 = 12$	
10	$10 \div 2 =$		32	$__ \times 2 = 16$	
11	$10 \times 2 =$		33	$__ \times 2 = 18$	
12	$6 \times 2 =$		34	$__ \times 2 = 14$	
13	$7 \times 2 =$		35	$16 \div 2 =$	
14	$8 \times 2 =$		36	$18 \div 2 =$	
15	$9 \times 2 =$		37	$12 \div 2 =$	
16	$14 \div 2 =$		38	$14 \div 2 =$	
17	$12 \div 2 =$		39	$11 \times 2 =$	
18	$16 \div 2 =$		40	$22 \div 2 =$	
19	$20 \div 2 =$		41	$12 \times 2 =$	
20	$18 \div 2 =$		42	$24 \div 2 =$	
21	$__ \times 2 = 12$		43	$13 \times 2 =$	
22	$__ \times 2 = 10$		44	$26 \div 2 =$	

SPRINT #2

(week 2)

A

Correct _____

Solve.

1	$2 \times 3 =$		23	$___ \times 3 = 10$	
2	$3 \times 3 =$		24	$___ \times 3 = 6$	
3	$4 \times 3 =$		25	$___ \times 3 = 9$	
4	$5 \times 3 =$		26	$30 \div 3 =$	
5	$1 \times 3 =$		27	$15 \div 3 =$	
6	$6 \div 3 =$		28	$3 \div 3 =$	
7	$9 \div 3 =$		29	$6 \div 3 =$	
8	$15 \div 3 =$		30	$9 \div 3 =$	
9	$3 \div 3 =$		31	$___ \times 3 = 18$	
10	$12 \div 3 =$		32	$___ \times 3 = 21$	
11	$6 \times 3 =$		33	$___ \times 3 = 27$	
12	$7 \times 3 =$		34	$___ \times 3 = 24$	
13	$8 \times 3 =$		35	$21 \div 3 =$	
14	$9 \times 3 =$		36	$27 \div 3 =$	
15	$10 \times 3 =$		37	$18 \div 3 =$	
16	$24 \div 3 =$		38	$24 \div 3 =$	
17	$21 \div 3 =$		39	$11 \times 3 =$	
18	$27 \div 3 =$		40	$33 \div 3 =$	
19	$18 \div 3 =$		41	$12 \times 3 =$	
20	$30 \div 3 =$		42	$36 \div 3 =$	
21	$___ \times 3 = 15$		43	$13 \times 3 =$	
22	$___ \times 3 = 3$		44	$39 \div 3 =$	

B

Improvement _____

Correct _____

Solve.

1	$1 \times 3 =$		23	$\underline{\quad} \times 3 = 6$	
2	$2 \times 3 =$		24	$\underline{\quad} \times 3 = 30$	
3	$3 \times 3 =$		25	$\underline{\quad} \times 3 = 9$	
4	$4 \times 3 =$		26	$6 \div 3 =$	
5	$5 \times 3 =$		27	$3 \div 3 =$	
6	$9 \div 3 =$		28	$30 \div 3 =$	
7	$6 \div 3 =$		29	$15 \div 3 =$	
8	$12 \div 3 =$		30	$9 \div 3 =$	
9	$3 \div 3 =$		31	$\underline{\quad} \times 3 = 18$	
10	$15 \div 3 =$		32	$\underline{\quad} \times 3 = 24$	
11	$10 \times 3 =$		33	$\underline{\quad} \times 3 = 27$	
12	$6 \times 3 =$		34	$\underline{\quad} \times 3 = 21$	
13	$7 \times 3 =$		35	$24 \div 3 =$	
14	$8 \times 3 =$		36	$27 \div 3 =$	
15	$9 \times 3 =$		37	$18 \div 3 =$	
16	$21 \div 3 =$		38	$21 \div 3 =$	
17	$18 \div 3 =$		39	$11 \times 3 =$	
18	$24 \div 3 =$		40	$33 \div 3 =$	
19	$30 \div 3 =$		41	$12 \times 3 =$	
20	$27 \div 3 =$		42	$36 \div 3 =$	
21	$\underline{\quad} \times 3 = 3$		43	$13 \times 3 =$	
22	$\underline{\quad} \times 3 = 15$		44	$39 \div 3 =$	

PATTERN SHEET #1
(week 3)

Multiply.

$6 \times 1 = \underline{\quad}$ $6 \times 2 = \underline{\quad}$ $6 \times 3 = \underline{\quad}$ $6 \times 4 = \underline{\quad}$

$6 \times 5 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$ $6 \times 8 = \underline{\quad}$

$6 \times 9 = \underline{\quad}$ $6 \times 10 = \underline{\quad}$ $6 \times 5 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$

$6 \times 5 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$ $6 \times 5 = \underline{\quad}$ $6 \times 8 = \underline{\quad}$

$6 \times 5 = \underline{\quad}$ $6 \times 9 = \underline{\quad}$ $6 \times 5 = \underline{\quad}$ $6 \times 10 = \underline{\quad}$

$6 \times 6 = \underline{\quad}$ $6 \times 5 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$

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$6 \times 6 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$

$6 \times 8 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$ $6 \times 9 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$

$6 \times 8 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$ $6 \times 8 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$

$6 \times 8 = \underline{\quad}$ $6 \times 9 = \underline{\quad}$ $6 \times 9 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$

$6 \times 9 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$ $6 \times 9 = \underline{\quad}$ $6 \times 8 = \underline{\quad}$

$6 \times 9 = \underline{\quad}$ $6 \times 8 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$ $6 \times 9 = \underline{\quad}$

$6 \times 7 = \underline{\quad}$ $6 \times 9 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$ $6 \times 8 = \underline{\quad}$

$6 \times 9 = \underline{\quad}$ $6 \times 7 = \underline{\quad}$ $6 \times 6 = \underline{\quad}$ $6 \times 8 = \underline{\quad}$

PATTERN SHEET #2 **(week 4)**

Multiply.

$7 \times 1 = \underline{\hspace{2cm}}$ $7 \times 2 = \underline{\hspace{2cm}}$ $7 \times 3 = \underline{\hspace{2cm}}$ $7 \times 4 = \underline{\hspace{2cm}}$

$7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 10 = \underline{\hspace{2cm}}$ $7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$

$7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$ $7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$

$7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 10 = \underline{\hspace{2cm}}$

$7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 5 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$

$7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$

$7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$

$7 \times 7 = \underline{\hspace{2cm}}$ $7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$ $7 \times 7 = \underline{\hspace{2cm}}$ $7 \times 6 = \underline{\hspace{2cm}}$ $7 \times 8 = \underline{\hspace{2cm}}$

PATTERN SHEET #3 (week 5)

Multiply.

$8 \times 1 = \underline{\quad}$

$8 \times 2 = \underline{\quad}$

$8 \times 3 = \underline{\quad}$

$8 \times 4 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 10 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 10 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 5 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$

$8 \times 9 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$8 \times 6 = \underline{\quad}$

$8 \times 8 = \underline{\quad}$





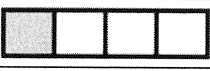


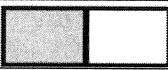

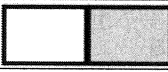
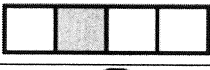


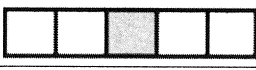


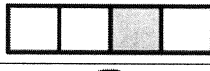
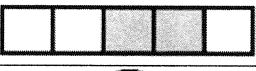


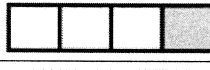
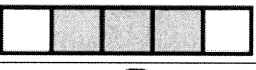
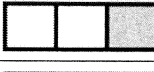

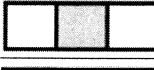
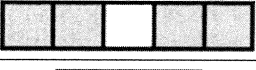
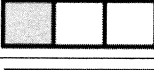
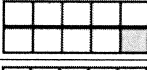
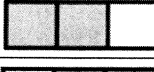
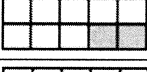
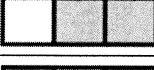
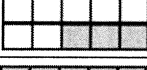

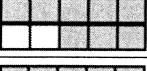

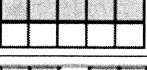

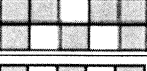

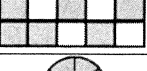




SPRINT #3

(week 6)

A





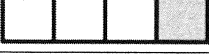




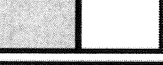

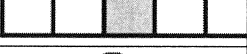



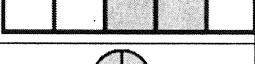
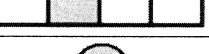


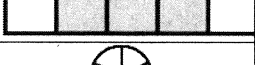



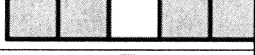
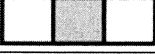


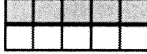
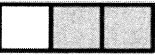
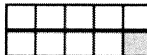





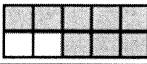

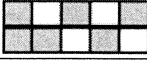

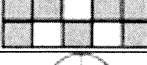




Correct _____

Write the fraction that is shaded.

1		/	23		/
2		/	24		/
3		/	25		/
4		/	26		/
5		/	27		/
6		/	28		/
7		/	29		/
8		/	30		/
9		/	31		/
10		/	32		/
11		/	33		/
12		/	34		/
13		/	35		/
14		/	36		/
15		/	37		/
16		/	38		/
17		/	39		/
18		/	40		/
19		/	41		/
20		/	42		/
21		/	43		/
22		/	44		/

B Improvement _____ # Correct _____

Write the fraction that is shaded.

1		/	23		/
2		/	24		/
3		/	25		/
4		/	26		/
5		/	27		/
6		/	28		/
7		/	29		/
8		/	30		/
9		/	31		/
10		/	32		/
11		/	33		/
12		/	34		/
13		/	35		/
14		/	36		/
15		/	37		/
16		/	38		/
17		/	39		/
18		/	40		/
19		/	41		/
20		/	42		/
21		/	43		/
22		/	44		/

SPRINT #4 (week 7)

A

Correct _____

Write each fraction as a whole number.

1	$\frac{2}{1} =$		23	$\frac{6}{3} =$	
2	$\frac{2}{2} =$		24	$\frac{3}{3} =$	
3	$\frac{4}{2} =$		25	$\frac{3}{1} =$	
4	$\frac{6}{2} =$		26	$\frac{9}{3} =$	
5	$\frac{10}{2} =$		27	$\frac{16}{4} =$	
6	$\frac{8}{2} =$		28	$\frac{20}{4} =$	
7	$\frac{5}{1} =$		29	$\frac{12}{3} =$	
8	$\frac{5}{5} =$		30	$\frac{15}{3} =$	
9	$\frac{10}{5} =$		31	$\frac{70}{10} =$	
10	$\frac{15}{5} =$		32	$\frac{12}{2} =$	
11	$\frac{25}{5} =$		33	$\frac{14}{2} =$	
12	$\frac{20}{5} =$		34	$\frac{90}{10} =$	
13	$\frac{10}{10} =$		35	$\frac{30}{5} =$	
14	$\frac{50}{10} =$		36	$\frac{35}{5} =$	
15	$\frac{30}{10} =$		37	$\frac{60}{10} =$	
16	$\frac{10}{1} =$		38	$\frac{18}{2} =$	
17	$\frac{20}{10} =$		39	$\frac{40}{5} =$	
18	$\frac{40}{10} =$		40	$\frac{80}{10} =$	
19	$\frac{8}{4} =$		41	$\frac{16}{2} =$	
20	$\frac{4}{4} =$		42	$\frac{45}{5} =$	
21	$\frac{4}{1} =$		43	$\frac{27}{3} =$	
22	$\frac{12}{4} =$		44	$\frac{32}{4} =$	

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B

Improvement _____

Correct _____

Write each fraction as a whole number.

1	$\frac{5}{1} =$		23	$\frac{8}{4} =$	
2	$\frac{5}{5} =$		24	$\frac{4}{4} =$	
3	$\frac{10}{5} =$		25	$\frac{4}{1} =$	
4	$\frac{15}{5} =$		26	$\frac{12}{4} =$	
5	$\frac{25}{5} =$		27	$\frac{12}{3} =$	
6	$\frac{20}{5} =$		28	$\frac{15}{3} =$	
7	$\frac{2}{1} =$		29	$\frac{16}{4} =$	
8	$\frac{2}{2} =$		30	$\frac{20}{4} =$	
9	$\frac{4}{2} =$		31	$\frac{90}{10} =$	
10	$\frac{6}{2} =$		32	$\frac{30}{5} =$	
11	$\frac{10}{2} =$		33	$\frac{35}{5} =$	
12	$\frac{8}{2} =$		34	$\frac{70}{10} =$	
13	$\frac{10}{1} =$		35	$\frac{12}{2} =$	
14	$\frac{10}{10} =$		36	$\frac{14}{2} =$	
15	$\frac{50}{10} =$		37	$\frac{80}{10} =$	
16	$\frac{30}{10} =$		38	$\frac{45}{5} =$	
17	$\frac{20}{10} =$		39	$\frac{16}{2} =$	
18	$\frac{40}{10} =$		40	$\frac{60}{10} =$	
19	$\frac{6}{3} =$		41	$\frac{18}{2} =$	
20	$\frac{3}{3} =$		42	$\frac{40}{5} =$	
21	$\frac{3}{1} =$		43	$\frac{36}{4} =$	
22	$\frac{9}{3} =$		44	$\frac{24}{3} =$	

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PATTERN SHEET #4

(week 8)

Multiply.

$9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}}$

$9 \times 5 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}}$

$9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}}$

$9 \times 5 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}}$

$9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}}$

$9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}}$

$9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}}$

$9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}}$

$9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}}$

$9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}}$

$9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}} \quad 9 \times 1 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}}$

$9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}}$

$9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}}$

$9 \times 5 = \underline{\hspace{2cm}} \quad 9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}}$

$9 \times 3 = \underline{\hspace{2cm}} \quad 9 \times 5 = \underline{\hspace{2cm}} \quad 9 \times 2 = \underline{\hspace{2cm}} \quad 9 \times 4 = \underline{\hspace{2cm}}$

SPRINT #5
(week 9)

A

Correct _____

Multiply or divide.

1	$2 \times 5 =$		23	$___ \times 5 = 50$	
2	$3 \times 5 =$		24	$___ \times 5 = 10$	
3	$4 \times 5 =$		25	$___ \times 5 = 15$	
4	$5 \times 5 =$		26	$50 \div 5 =$	
5	$1 \times 5 =$		27	$25 \div 5 =$	
6	$10 \div 5 =$		28	$5 \div 5 =$	
7	$15 \div 5 =$		29	$10 \div 5 =$	
8	$25 \div 5 =$		30	$15 \div 5 =$	
9	$5 \div 5 =$		31	$___ \times 5 = 30$	
10	$20 \div 5 =$		32	$___ \times 5 = 35$	
11	$6 \times 5 =$		33	$___ \times 5 = 45$	
12	$7 \times 5 =$		34	$___ \times 5 = 40$	
13	$8 \times 5 =$		35	$35 \div 5 =$	
14	$9 \times 5 =$		36	$45 \div 5 =$	
15	$10 \times 5 =$		37	$30 \div 5 =$	
16	$40 \div 5 =$		38	$40 \div 5 =$	
17	$35 \div 5 =$		39	$11 \times 5 =$	
18	$45 \div 5 =$		40	$55 \div 5 =$	
19	$30 \div 5 =$		41	$15 \div 5 =$	
20	$50 \div 5 =$		42	$60 \div 5 =$	
21	$___ \times 5 = 25$		43	$12 \times 5 =$	
22	$___ \times 5 = 5$		44	$70 \div 5 =$	

B

Improvement _____

Correct _____

Multiply or divide.

1	$1 \times 5 =$		23	$\underline{\quad} \times 5 = 10$	
2	$2 \times 5 =$		24	$\underline{\quad} \times 5 = 50$	
3	$3 \times 5 =$		25	$\underline{\quad} \times 5 = 15$	
4	$4 \times 5 =$		26	$10 \div 5 =$	
5	$5 \times 5 =$		27	$5 \div 5 =$	
6	$15 \div 5 =$		28	$50 \div 5 =$	
7	$10 \div 5 =$		29	$25 \div 5 =$	
8	$20 \div 5 =$		30	$15 \div 5 =$	
9	$5 \div 5 =$		31	$\underline{\quad} \times 5 = 15$	
10	$25 \div 5 =$		32	$\underline{\quad} \times 5 = 20$	
11	$10 \times 5 =$		33	$\underline{\quad} \times 5 = 45$	
12	$6 \times 5 =$		34	$\underline{\quad} \times 5 = 35$	
13	$7 \times 5 =$		35	$40 \div 5 =$	
14	$8 \times 5 =$		36	$45 \div 5 =$	
15	$9 \times 5 =$		37	$30 \div 5 =$	
16	$35 \div 5 =$		38	$35 \div 5 =$	
17	$30 \div 5 =$		39	$11 \times 5 =$	
18	$40 \div 5 =$		40	$55 \div 5 =$	
19	$50 \div 5 =$		41	$12 \times 5 =$	
20	$45 \div 5 =$		42	$60 \div 5 =$	
21	$\underline{\quad} \times 5 = 5$		43	$13 \times 5 =$	
22	$\underline{\quad} \times 5 = 25$		44	$65 \div 5 =$	

SPRINT #6

(week 10)

A

Correct _____

Multiply or divide.

1	$2 \times 7 =$		23	$___ \times 7 = 70$	
2	$3 \times 7 =$		24	$___ \times 7 = 14$	
3	$4 \times 7 =$		25	$___ \times 7 = 21$	
4	$5 \times 7 =$		26	$70 \div 7 =$	
5	$1 \times 7 =$		27	$35 \div 7 =$	
6	$14 \div 7 =$		28	$7 \div 7 =$	
7	$21 \div 7 =$		29	$14 \div 7 =$	
8	$35 \div 7 =$		30	$21 \div 7 =$	
9	$7 \div 7 =$		31	$___ \times 7 = 42$	
10	$28 \div 7 =$		32	$___ \times 7 = 49$	
11	$6 \times 7 =$		33	$___ \times 7 = 63$	
12	$7 \times 7 =$		34	$___ \times 7 = 56$	
13	$8 \times 7 =$		35	$49 \div 7 =$	
14	$9 \times 7 =$		36	$63 \div 7 =$	
15	$10 \times 7 =$		37	$42 \div 7 =$	
16	$56 \div 7 =$		38	$56 \div 7 =$	
17	$49 \div 7 =$		39	$11 \times 7 =$	
18	$63 \div 7 =$		40	$77 \div 7 =$	
19	$42 \div 7 =$		41	$12 \times 7 =$	
20	$70 \div 7 =$		42	$84 \div 7 =$	
21	$___ \times 7 = 35$		43	$14 \times 7 =$	
22	$___ \times 7 = 7$		44	$98 \div 7 =$	

B

Improvement _____ # Correct _____

Multiply or divide.

1	$1 \times 7 =$		23	$__ \times 7 = 14$	
2	$2 \times 7 =$		24	$__ \times 7 = 70$	
3	$3 \times 7 =$		25	$__ \times 7 = 21$	
4	$4 \times 7 =$		26	$14 \div 7 =$	
5	$5 \times 7 =$		27	$7 \div 7 =$	
6	$21 \div 7 =$		28	$70 \div 7 =$	
7	$14 \div 7 =$		29	$35 \div 7 =$	
8	$28 \div 7 =$		30	$21 \div 7 =$	
9	$7 \div 7 =$		31	$__ \times 7 = 21$	
10	$35 \div 7 =$		32	$__ \times 7 = 28$	
11	$10 \times 7 =$		33	$__ \times 7 = 63$	
12	$6 \times 7 =$		34	$__ \times 7 = 49$	
13	$7 \times 7 =$		35	$56 \div 7 =$	
14	$8 \times 7 =$		36	$63 \div 7 =$	
15	$9 \times 7 =$		37	$42 \div 7 =$	
16	$49 \div 7 =$		38	$49 \div 7 =$	
17	$42 \div 7 =$		39	$11 \times 7 =$	
18	$56 \div 7 =$		40	$77 \div 7 =$	
19	$70 \div 7 =$		41	$12 \times 7 =$	
20	$63 \div 7 =$		42	$84 \div 7 =$	
21	$__ \times 7 = 7$		43	$13 \times 7 =$	
22	$__ \times 7 = 35$		44	$91 \div 7 =$	