Welcome Parents!

Math Fluency Workshop

3rd grade

We're delighted to have you here!

Please put your child's name and teacher's name in the chat box.

3rd grade

Why is developing number sense important?

Number sense is one of the the foundational building blocks for understanding mathematics.
Students who struggle in mathematics do not necessarily lack mathematical ability.

Some students simply have not developed a strong number sense on which to build their knowledge. Therefore, number sense must be developed and fostered over time.

With focused and intentional practice, students understand that numbers are meaningful and learn to estimate and determine the reasonableness of answers.

What does it mean to be fluent?

Mastery Must Focus on Fluency

- Procedural Fluency includes accuracy, efficiency, flexibility, and selection of appropriate strategies.

Accuracy

The ability to produce mathematically precise answers.

Efficiency

The ability to produce answers relatively quickly and easily. Students are able to keep track of sub-problems, and make use of intermediate results to solve larger problems.

Flexibility

The ability to think about a problem in more than one way and to adapt or adjust thinking if necessary.

Appropriate Strategy Use

The ability to select and apply a strategy that is appropriate for solving the given problem efficiently.

Fluency Develops in Three Phases

Students progress through each stage: counting, deriving and mastery, as they learn the basic facts in any operation.

Phase 1: Counting
(counts with objects or mentally)

Phase 2: Deriving
(uses reasoning strategies based on known facts)

Phase 3: Mastery
(efficient production of answers)

Fundamental Ideas

- Mastery Must Focus on Fluency
- Fluency Develops in Three Phases
- Foundational Facts Must Precede Derived Facts
- Timed Tests Do Not Assess Fluency
- Students Need Substantial and Enjoyable Practice

Addition Fluency Practice

Ms. Neal

COUNT ON +1

Count up 1 when adding 1 to a number.

5+1=6

DOUBLES RAP

It's the doubles, baby. Let's go. Let's go!
It's the doubles baby, and it starts with zero!

0+0=0, OH!
1+1=2 - OOOH!
2+2=4 - MORE!
3+3=6 - KICKS!
4+4=8 - that's GREAT!
5+5=10 - AGAIN!
6+6=12 - that's AWESOME!
7+7=14 - let's REPEAT!
8+8=16 - RAP KEEPS!
9+9=18 - JELLY BEANS!
10+10=20 - that's PLENTY!

TENS PARTNERS

There are six sets of numbers pairs that make 10.

0+10=10
1+9=10
2+8=10
3+7=10
4+6=10
5+5=10

DOUBLES

Add a number to itself and that number doubles.

5+5=10

DOUBLES +1

Add a number to itself and add 1 more.

3+3=6

SO

3+4=7

PLUS 0

When you add 0 to a number & the number stays the same.

5+0=5

COUNT ON +2

Count up 2 when adding 2 to a number.

5+2=7

COUNT ON +3

Count up 3 when adding 3 to a number.

5+3=8

FLIP FLOP

Commutative

Add numbers in any order and the sum is the same.

5+4=9

SO

4+5=9

PLUS 10

When 10 is added to a number, the number in the ten-place increases by 1.

5+10=15

PLUS 9

Add 10 then jump back 1.

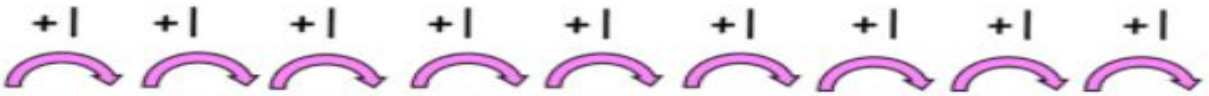
5+10=15–1

SO

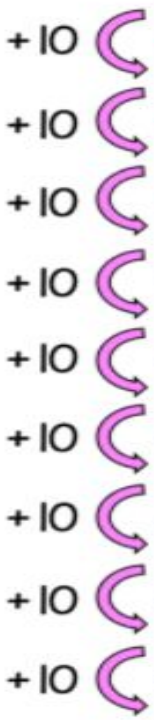
5+9=14

COUNT UP

Count up when adding on small numbers: +1, +2, +3.



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Adding On a Hundreds Chart

$54 + 35 = 89$

1. Start at 54
2. Go down 3 tens
3. Go right 5 ones

Subtraction Fluency Practice

Mrs. Stanley

Tic Tac Toe
Subtract 7 Facts

a game for 2 players
Need: counters in 2 different colors or symbol cards

Take turns to answer a subtraction fact. If you are correct cover the square with a symbol card or counter in your color. The first player to make 3 in a row vertically, horizontally or diagonally, is the winner.

11-7	13-7	9-7
14-7	16-7	12-7
8-7	15-7	10-7

Subtraction Tic Tac Toe

Mixed - Subtract Within 18

a game for 2 players

One player is X's and one is O's. Take turns to answer the subtraction and then place X or O over the subtraction. The first player to create a line of 3 is the winner. The line can go across, down or diagonally.

17-8	16-9	15-12
13-9	17-5	18-4
16-6	14-10	16-11

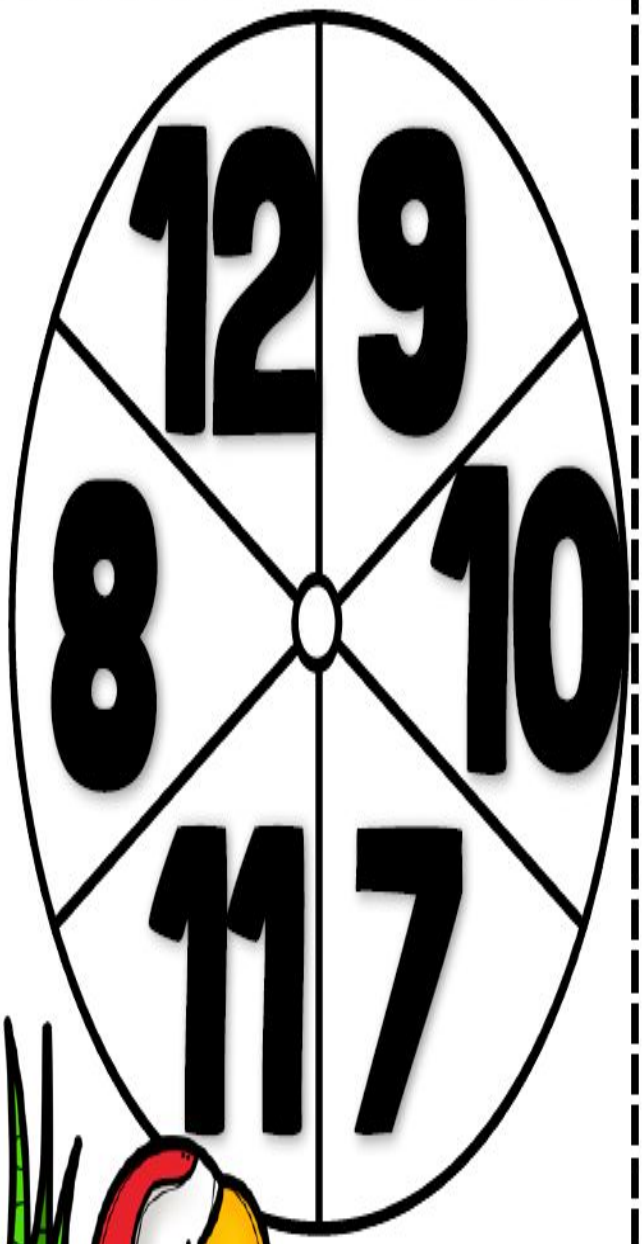
16-8	18-12	17-9
18-6	15-7	14-6
14-9	13-8	18-11

15-13	14-8	13-9
13-11	16-7	18-14
16-10	18-7	15-9

17-3	14-12	13-7
15-6	17-12	18-2
13-10	16-14	14-7

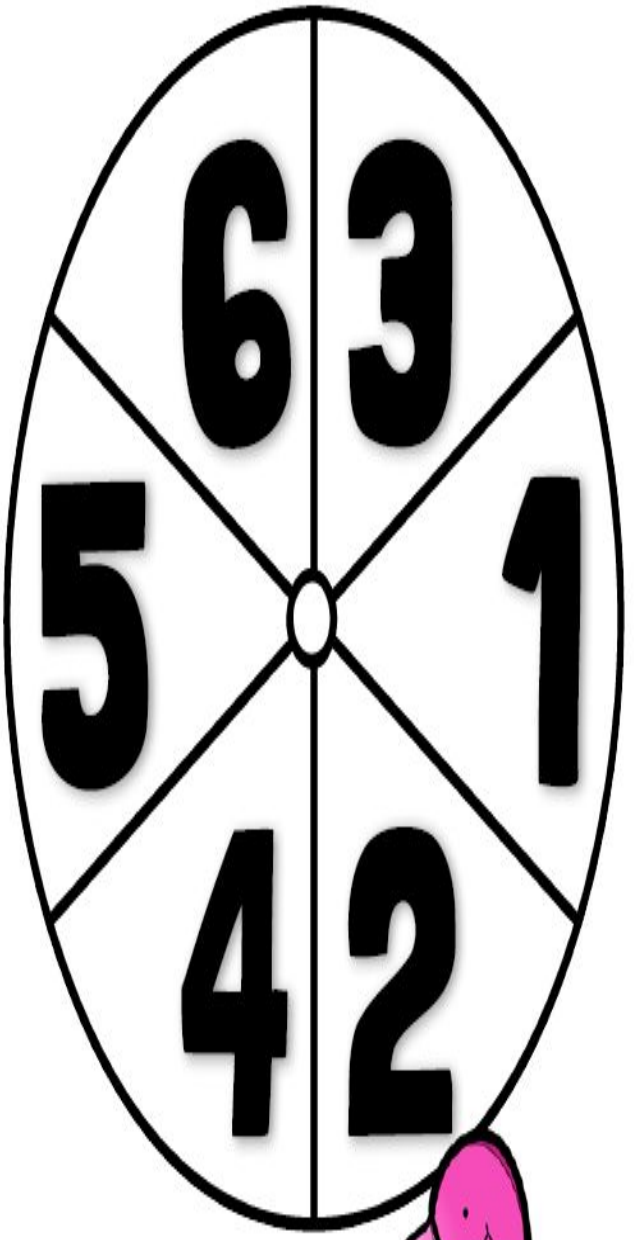
13-12	14-11	18-7
15-5	16-10	14-5
17-13	15-4	13-8

17-6	15-10	16-5
18-8	13-5	17-7
14-7	15-8	18-13



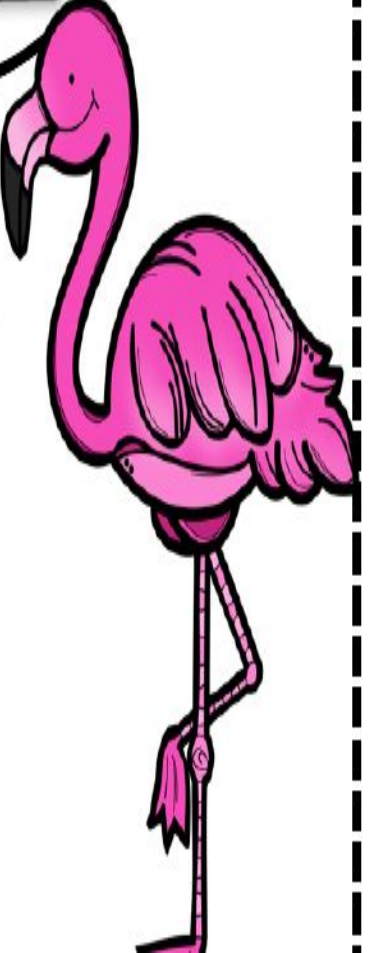
SPINNER

A



SPINNER

B



Name: _____

SPIN AND SUBTRACT

Spin Spinner A first. Write the number down. Spin Spinner B next. Write that number down. Complete the subtraction sentence. Write the answer down. Color the even answers blue and the odd answers red.

SPINNER A	MINUS	SPINNER B	EQUALS	DIFFERENCE	SPINNER A	MINUS	SPINNER B	EQUALS	DIFFERENCE
	-		=			-		=	
	-		=			-		=	
	-		=			-		=	
	-		=			-		=	
	-		=			-		=	
	-		=			-		=	

Multiplication Fluency Practice

Mrs. Edmunds

Multiplication Strategies

Facts	Strategy
1	**It's just that number** 1 x 5 = 5
2	**Double it!** 2 x 6 → 6 + 6 = 12
3	**Double it and Add a Group!** 3 x 7 → 7 + 7 = 14 → 14 + 7 = 21
4	**Double, Double!** 3 x 7 → 7 + 7 = 14 → 14 + 14 = 28
5	**Count by 5's that many times!** 5 x 7 → 5, 10, 15, 20, 25, 30, 35
6	**Multiply by 5 and Add a Group!** 6 x 6 → 5, 10, 15, 20, 25, 30 → 30 + 6 = 36
7	**Multiply by 5 and Add a Double!** 7 x 4 → 5, 10, 15, 20 → 20 + 8 = 28
8	**Double, Double, Double!** 8 x 6 → 6 + 6 = 12 → 12 + 12 = 24 → 24 + 24 = 48
9	**Multipy by 10 and Subtract a Group!** 9 x 6 → 10 x 6 = 60 → 60 - 6 = 54
10	**Count by 10's or just Add a Zero!** 10 x 4 → 10, 20, 30, 40 or 40 = 40
11	**Multiply by 10 and Add a Group!** 6 x 11 → 10 x 6 = 60 → 60 + 6 = 66
12	**Multiply by 10 and Add a Double!** 6 x 11 → 10 x 6 = 60 → 60 + 12 = 72

Multiplication Dice

Roll two dice. Write or draw the numbers from the dice in the boxes. Multiply the numbers together to find the product. Write the product in the circle.

	x		=	18		x	=
	x		=			x	=
	x		=			x	=
	x		=			x	=
	x		=			x	=
	x		=			x	=
	x		=			x	=

Division Fluency Practice

Mrs. Collins

Division Fluency

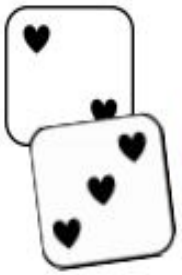
X =	X =
÷ =	÷ =

X =	X =
÷ =	÷ =

X =	X =
÷ =	÷ =

X =	X =
÷ =	÷ =

Division Fluency



Fact Family Dice Fun

_____ X _____ = _____ _____ X _____ = _____ _____ ÷ _____ = ____ _____ ÷ _____ = _____	_____ X _____ = _____ _____ X _____ = _____ _____ ÷ _____ = ____ _____ ÷ _____ = _____
_____ X _____ = _____ _____ X _____ = _____ _____ ÷ _____ = ____ _____ ÷ _____ = _____	_____ X _____ = _____ _____ X _____ = _____ _____ ÷ _____ = ____ _____ ÷ _____ = _____

Thank you for attending 3rd's grade fluency workshop! Survey link provided in the chat box.

If watching after the zoom meeting, please click the image to complete the survey.