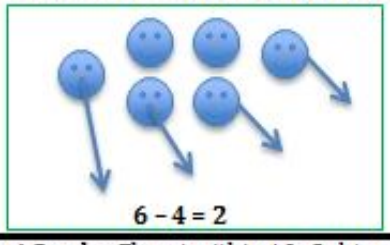
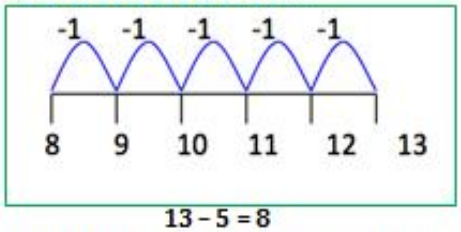
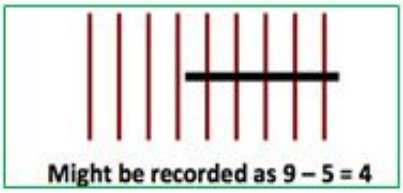
Subtraction Strategies

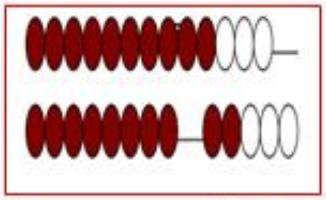
Kindergarten: Subtract within 10 using objects or drawings, fluent within 5.
Prerequisite skills: Counting backwards, One-to-One Relationship

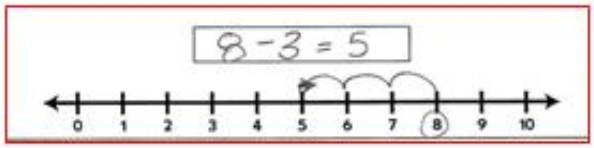


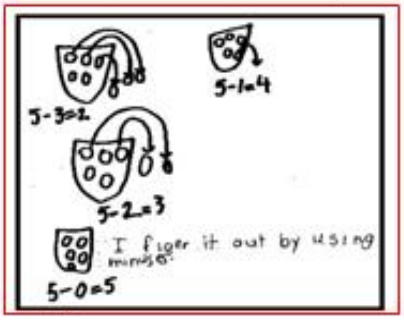




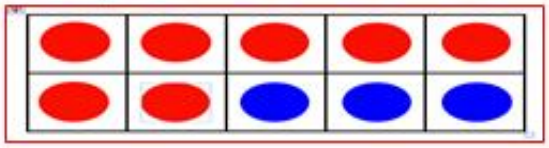
First Grade: Fluent within 10. Subtract within 100(up to 2 digit numbers, single digit or multiples of 10.) (Use concrete models, drawings, strategies based on place value, properties of operations, and the relationship between addition and subtraction.)



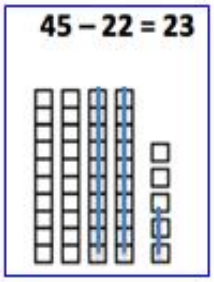


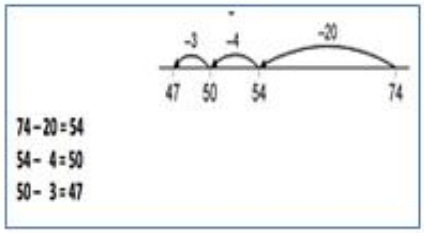


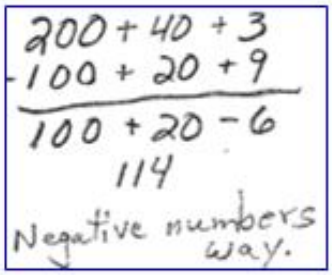
10 – 3 = 7

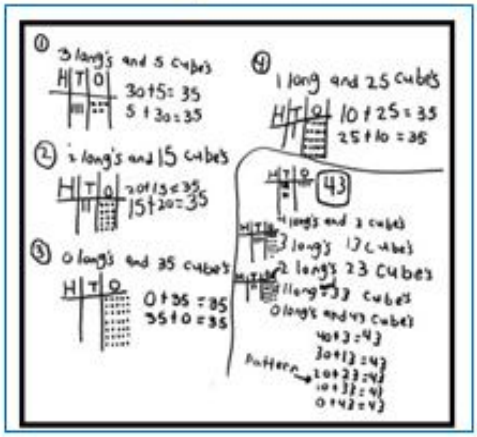


Second Grade: Fluent within 100, subtract within 1,000 using concrete models, drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
Third Grade: Fluent within 1000, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
Fourth Grade: Fluently subtract multi-digit whole numbers using **the standard algorithm.**

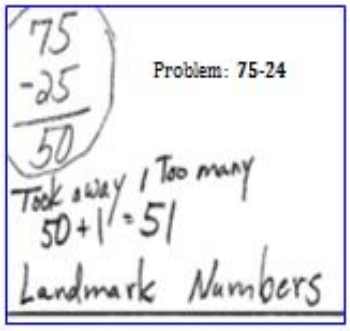








600 + 140 + 14
- 200 + 80 + 6
400 + 60 + 8 = 468



Equal Distance	Adding Up	Partial Difference	Traditional Algorithm
45 – 28 =	74	45	3
+2 +2	-47	-28	15
47 – 30 = 17	47 + 20 = 67	20 – 3 = 17	-28
	67 + 7 = 74		17

Addition Strategies

Kindergarten: Add within 10, fluent within 5. (Use objects or drawings)

First Grade: Add within 20, fluent within 10. Add within 100 (up to 2 digit numbers, single digit or multiples of 10.) (Use concrete models, drawings, strategies based on place value, properties of operations, and relationship between addition and subtraction.)

Prerequisite Skills: Rote Counting: 1-100 One- to-One Relationship

1 + 3 = 4

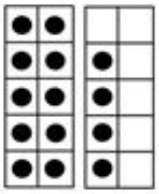
Using objects and drawings

Counting by Ones

Using a number line

3 + 1 = 4

Counting by ones



Using a Ten Frame

10 + 4 = 14

Counting by Ones or Tens and Ones

Using Base 10 Blocks

22 + 31 = 53

Counting Tens and Ones

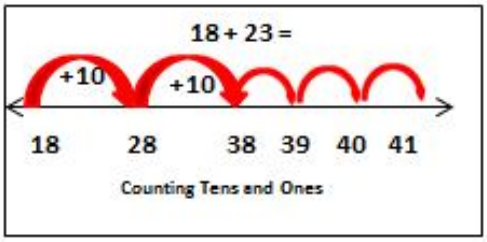
Using the 100 Chart

28 + 18 = 46

28 + 10 = 38

38 + 8 = 46

Counting Tens and Ones



Counting Tens and Ones

23 + 18 =

20 + 10 = 30

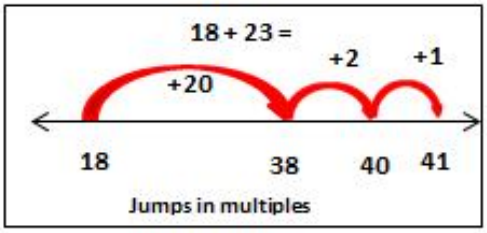
3 + 8 = 11

30 + 11 = 41

Break Both Numbers apart

Decomposition

23	
+18	Partial
30	Sums
+11	
41	



Jumps in multiples

Make 10	Doubles	Doubles +1, -1
8 + 3 = 11	9 + 9 = 18	8 + 9 = ____
8 + 2 = 10		8 + 8 = 16
10 + 1 = 11		16 + 1 = 17

Plus 10 Combinations

6 + 10 = 16

Plus Nine Combinations

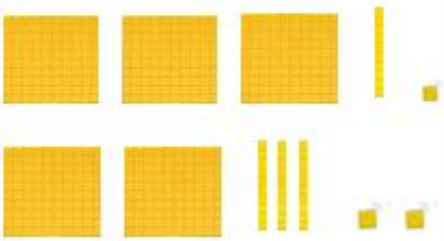
5 + 9 = 14

Second Grade: Fluently add within 100, add and subtract within 1,000 using concrete models, drawings and strategies based on place value, properties of operations, or the inverse relationship between addition and subtraction.

Third Grade: Fluently add within 1000 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Fourth Grade: Fluently add multi-digit whole numbers using the **standard algorithm.**

Base 10 Blocks



311 + 232 = 543

Using the 100 Chart

28 + 18 =

28 + 10 = 38

38 + 8 = 46

Jumps of multiples of tens and ones

311 + 232 = 543

Jumps of multiples of hundreds, tens, and ones

Break Apart: Both Addends	Break Apart: One Addend	Partial Sums	Traditional Algorithm	Make It Friendly
311 + 232 =	311 + 232 =	311	311	310
300 + 200 = 500	311 + 200 = 511	+232	+232	+233
10 + 30 = 40	511 + 30 = 541	500	543	543
1 + 2 = 3	541 + 2 = 543	40		
500 + 40 + 3 = 543		+3		
		543		