Addition: Hundred's Chart

47 + 32 =

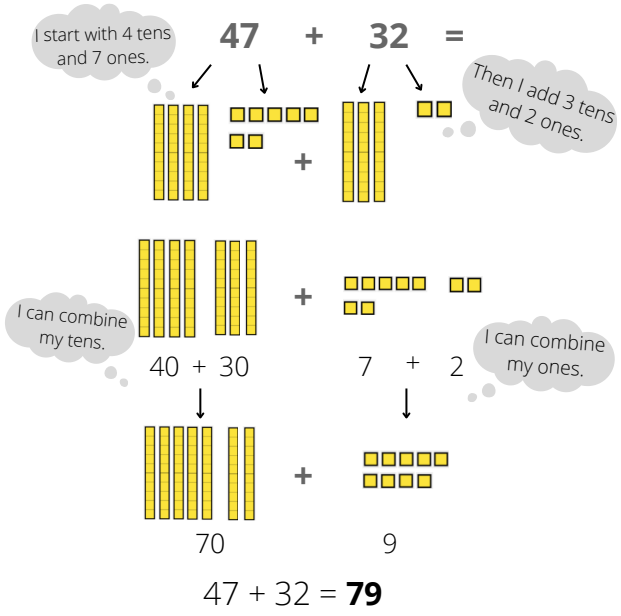
30 (3 tens) 2 (2 ones)

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	Start 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	End 79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

I can start at 47 and jump **3 rows of 10** for a total of 30

I can then jump **2 ones** to 79.

Addition: Base Ten Blocks



47 + 32 = **79**

Addition: Partial Sums

Without Regrouping

I can break apart both addends by place value

53 + 34 =

50 3 30 4

50 + 30 = 80

3 + 4 = 7

80 + 7 = **87**

I can break apart one addend by place value

53 + 34 =

30 4

53 + 30 = 83

83 + 4 = **87**

Addition: Partial Sums

With Regrouping

I can break apart **both addends** by place value

68 + 25 =

60 8 20 5

60 + 20 = 80

8 + 5 = 13

80 + 10 + 3 = **93**

I can think of 13 as 1 ten and 3 ones.

I can break apart **one addend** by place value

68 + 25 =

20 5

68 + 20 = 88

88 + 5 = 93 **or** 88 + 5 =

2 + 3

88 + 2 = 90

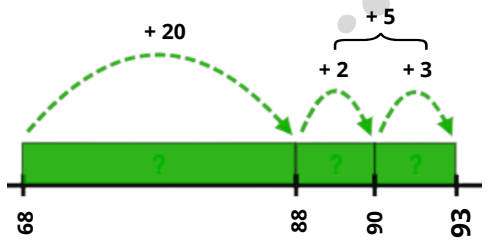
90 + 3 = **93**

I can break apart the 5 ones into 2 and 3 so it's easier to add.

Addition: Open Number Line

68 + 25 =

I can break apart 5 ones into a 2 and a 3. This helps me get to a friendly number which makes it easier to add.



Addition: Making A Friendly Number

A friendly number is a number that is easy to work with. For example, multiples of 10 are "friendly" because they are easy to work with when we add or subtract.

38 + 49 =

2 + 47

If I break up 49 into 2 and 47, I can use the 2 to make 38 a friendly number.

40 + 47 = **87**

38 + 49 =

37 + 1

If I break up 38 into 37 and 1, I can use the 1 to make 49 a friendly number.

37 + 50 = **87**

Creating friendly numbers changes the equations, but the value stays the same.

Subtraction: Hundred's Chart

Counting Back Strategy

92 - 45 =

40 (4 tens) 5 (5 ones)

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 End	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 Start	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

I can then jump **5 ones** to **47**.

I can start at 92 and jump back **4 rows of 10** for a total of 40.

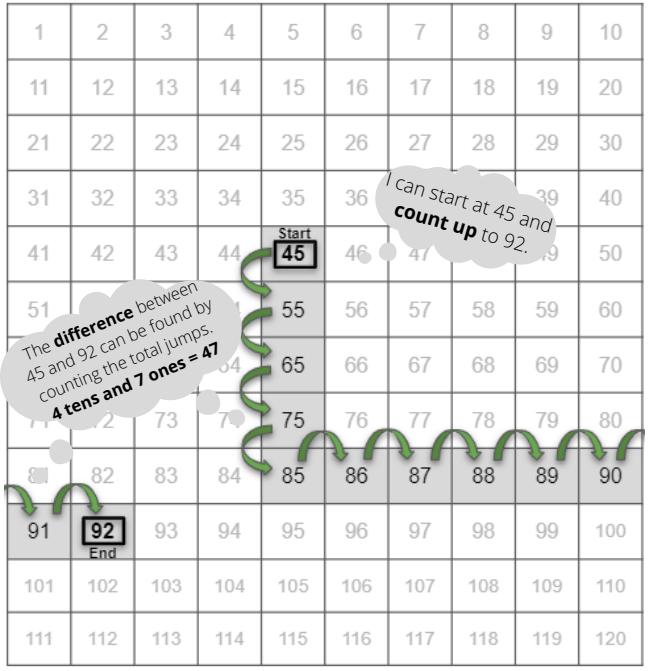
Subtraction: Hundred's Chart

Counting Up Strategy

92 - 45 =

By thinking of subtraction as addition, I can **count up** to find the difference between two numbers.

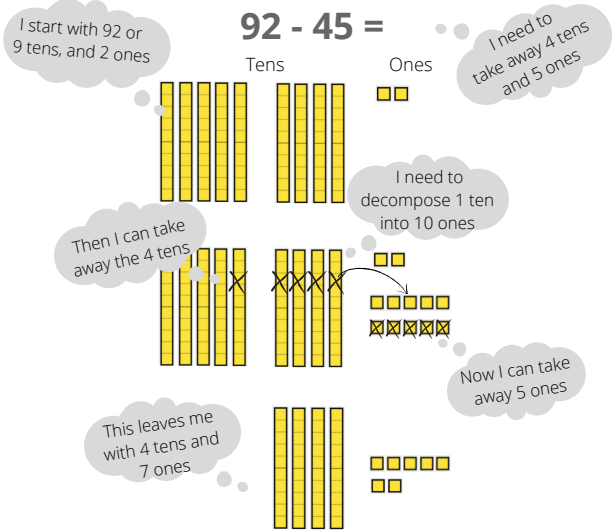
45 + ___ = 92



Subtraction: Base Ten

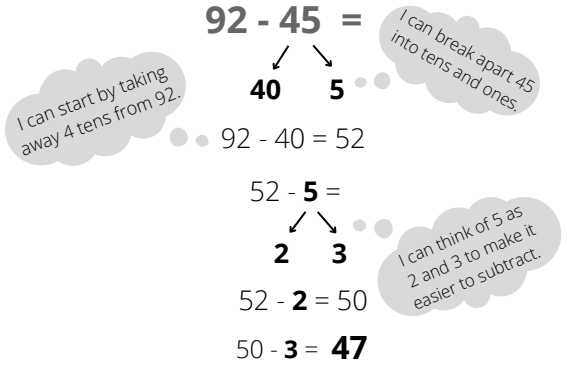
Regrouping with Manipulatives

92 - 45 =



Subtraction: Partial Differences

92 - 45 =

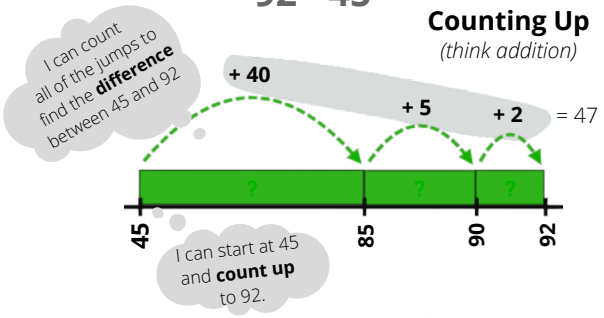


Subtraction: Open Number Line

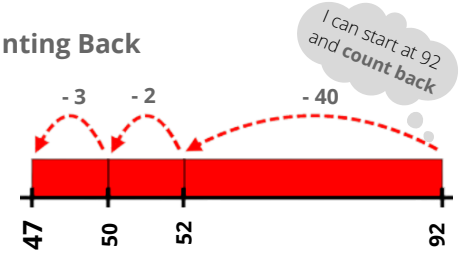
92 - 45 =

Counting Up

(think addition)

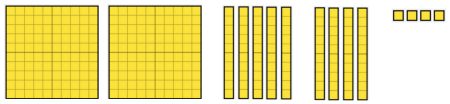


Counting Back



Representing Numbers in Different Ways

Numbers can be taken apart in different ways to use them efficiently.



2 hundreds 9 tens 4 ones (200 + 90 + 4)

Some other ways to think about 294 include:

- 29 tens and 4 ones (290 + 4)
- 28 tens and 14 ones (280 + 14)
- 1 hundred, 19 tens, and 4 ones (100 + 190 + 4)

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Grade 2
Models and Strategies

- **Addition**
- **Subtraction**

This brochure highlights some of the models and strategies used to develop computational fluency through a deep understanding of place value, number sense, and properties of operations.

By learning multiple strategies, students think flexibly, make connections, and choose the most effective and efficient strategy for problem solving.