NUMBER and PLACE VALUE KNOWLEDGE ORGANISER

Year 5

Overview

Number and Place Value we learn:

-Roman Numerals to 1,000 -Numbers to One Million

-Powers of 10 -10/ 100/ 1,000/ 10,000/ 100,000 More/Less

-Partition Numbers to 1,000,000 -Number Line to 1,000,000

-Compare/Order to 1,000,000 -Round within 1,000,000

Number and Place Value is useful learning because it is the foundation for all other maths. It helps us to understand the value of digits of numbers and to use mental calculation methods. It helps us to use maths functionally in many areas of our lives.

Numbers to One Million/ Negative Numbers

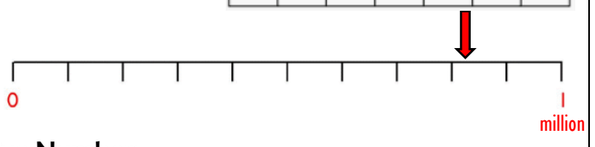
Numbers to One Million

	Place Value	Number	Number of Digits
Ones	Ones	1	1
	Tens	10	2
	Hundreds	100	3
Thousands	Thousands	1,000	4
	Ten Thousands	10,000	5
	Hundred Thousands	100,000	6
Millions	Millions	1,000,000	7
	Ten Millions	10,000,000	8
	Hundred Millions	100,000,000	9

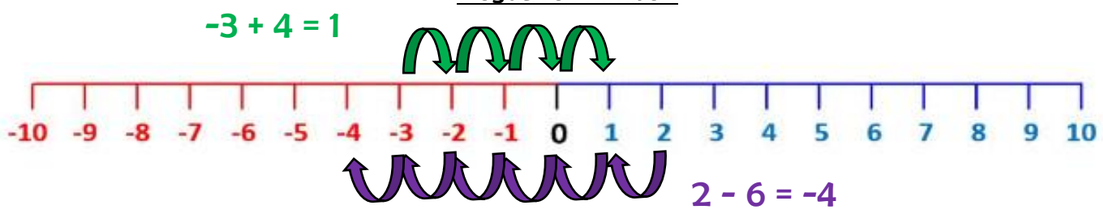
-One hundred thousand is 10 ten thousands.

-One million is 10 hundred thousands.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
	8	1	9	2	7	9



Negative Numbers



Comparing and Ordering/ Counting in Powers of 10

Comparing and Ordering Numbers

> Greater than

35,213 > 4,840

The number on the left has 3 ten thousands and the number on the right does not have any ten thousands.

= Equals

39 + 42 = 9 x 9

Both calculations have the same value: 81.

< Less than

989,523 < 2,153,822

The number on the right has 2 millions and the number on the left does not have any millions.

35,467 43,567 34,567 54,376 34,576

34,567 34,576 35,467 43,567 54,376

Smallest Largest

Counting in Powers of 10

475 485 495 505 515

Tens increase until 10 tens becomes 1 hundred and 0 tens.

1739 1839 1939 2039 2139

Hundreds increase until 10 hundreds becomes 1 thousand and 0 hundreds.

376,428 386,428 396,428 406,428 416,428

Ten thousands increase until 10 ten thousands becomes 1 hundred thousands and no ten thousands.

4,784,661 4,884,661 4,984,661 5,084,661 5,184,661

Hundred thousands increase until 10 ten hundred thousands becomes 1 million and no hundred thousands.

Roman Numerals/ Rounding

Roman Numerals

1 =	I	40 =	XL
2 =	II	50 =	L
3 =	III	60 =	LX
4 =	IV	70 =	LXX
5 =	V	80 =	LXXX
6 =	VI	90 =	XC
7 =	VII	100 =	C
8 =	VIII	101 =	CI
9 =	IX	150 =	CL
10 =	X	200 =	CC
20 =	XX	500 =	D
21 =	XXI	800 =	DCCC
30 =	XXX	1000 =	M

Add the numerals 'I', 'X' or 'C' together up to 3 times:

Count on with the numeral 'I' from each 10, 5 or 50.

4 is written 1 before a 5.
9 is written 1 before a 10.

40 is written 10 before 50.
90 is written 10 before 100.

CDIX	409	DCCLXXVII	777
CDLX	460	DCCXCIX	799
DLXXI	571	DCCCXXX	830
DCII	602	CMLXI	961
DCXX	620	CMXCVI	996

Rounding

Rounding Numbers

A rounded number has about the same value as the starting number, but it is less exact.

Find your place
Look next door
5 or greater, add one more

Round to the nearest ten

54 → 50
55 → 60
313 → 310
549 → 550
1221 → 1220

Round to the nearest hundred

415 → 400
950 → 1000
7261 → 7300
7221 → 7200
36430 → 36400

Key Vocabulary

Millions Hundreds Thousands Negative Number Interval Sequence Linear Sequence Place Value Partitioning Numerals