

1 – Place Value.

Place Value

The **value** of something is how much it is worth.

We can tell the value of a digit by looking at its **place** within a number.

5 = 5 units	Th	H	T	O
50 = 5 tens			5	0
500 = 5 hundreds	5	0	0	0
5000 = 5 thousands	5	0	0	0

M	100	10	Th	H	T	O	.	t	h
Millions	Hundreds of Thousands	Tens of Thousands	Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths
5	3	2	0	7	8	6	.	4	1

Written form
Two hundred and eighty-seven

Numerical (standard) form
287

6 – Addition.

Addition is when you **add** to a group or a number of things. When we add two or more numbers together the number of things increases or becomes more.

When we add numbers together we find the **total** or **sum**.

Example: $5 + 11 + 3 = 19$

7 – Subtraction.

Subtraction is when you **take away** from a group or a number of things. When we subtract, the number of things in the group reduce or become less.

The part that is left after subtraction is called the **difference**.

Example: $32 - 9 = 23$

2 – Rounding.

Rounding means making a number simpler but keeping its value close to what it was. The result is less accurate, but easier to use. Rounding up is giving a number a higher value whereas rounding down is giving a number a lower value.

Rounding Rules

"About how many..."

"Round to the nearest..."

Example: Round 23 to nearest ten. $23=20$

Remember: When it's in the middle (5), you round up! $25=30$

Rule:

- Find the digit.
- Look next door.
- Five or higher, Add one more!
- Four or less, Let it rest!

Steps to rounding:

1. Underline the digit you are rounding to. (e.g. nearest 10 – underline digit in 10's column)
2. Circle the digit to the right of the digit you underlined.

rounding rules above:

digit you circled is a 5 or higher, then add one more to the digit.

digit you circled is a 4 or lower, then you let the underlined

digit stay the same and round the remaining digits to the right of the underlined digit to 0.

Example: 38 rounded to the nearest ten is 40

Example: 3567 rounded to nearest hundred is 3600

3 – Compare and order numbers.

Comparing numbers:

All numbers have value. You can compare the value of two whole numbers by using the following symbols:

Greater Than	Less Than	Equal To
>	<	=

Follow these steps to compare two numbers.

Step 1: Line up the numbers according to place value.

4,712
4,761

Step 2: Compare the numbers in each place starting with the largest.

Start here
4 = 4
7 = 7
1 is less than 6
So.....
4,712 is less than 4,761

Step 3: Use the symbols to show the relationship between the two numbers.

4,712 < 4,761
4,712 is less than 4,761

Ordering numbers:

To order numbers you must arrange them either from biggest to smallest or smallest to biggest.

Ordering numbers

least to greatest

408, 612, 809, 915

Use place value to put numbers in order from the smallest to largest.

greatest to least

788, 504, 418, 199

Use place value to put numbers in order from largest to the smallest.

Addition: Column Method

1	$\begin{array}{r} 453 \\ +348 \\ \hline \end{array}$	2	$\begin{array}{r} 453 \\ +348 \\ \hline 1 \end{array}$
	Place the numbers one on top of the other, lining up the hundreds, tens and ones.		Add the ones and write the answer.
3	$\begin{array}{r} 453 \\ +348 \\ \hline 1 \end{array}$	4	$\begin{array}{r} 453 \\ +348 \\ \hline 01 \end{array}$
	Regroup any tens under the tens column.		Add the tens including any tens you have regrouped. Regroup any hundreds under the hundreds column.
5	$\begin{array}{r} 453 \\ +348 \\ \hline 801 \\ 11 \end{array}$	6	$\begin{array}{r} 453 \\ +348 \\ \hline 801 \end{array}$
	Add the hundreds including any hundreds you have regrouped.		Check your answer.

Subtraction: Column Method

1	$\begin{array}{r} 453 \\ -348 \\ \hline \end{array}$	2	$\begin{array}{r} 453 \\ -348 \\ \hline 1 \end{array}$
	Place the numbers one on top of the other, lining up the hundreds, tens and ones.		Subtract the ones (note that the answer to $3 - 8$ is negative).
3	$\begin{array}{r} 453 \\ -348 \\ \hline 5 \end{array}$	4	$\begin{array}{r} 453 \\ -348 \\ \hline 05 \end{array}$
	Exchange a 10 from the 50 to give 13 ones. Subtract the ones: $13 - 8 = 5$		Subtract the tens: $40 - 40 = 0$
5	$\begin{array}{r} 453 \\ -348 \\ \hline 105 \end{array}$	6	$\begin{array}{r} 453 \\ -348 \\ \hline 105 \end{array}$
	Subtract the hundreds: $400 - 300 = 100$		Check your answer.