

Comparing Whole Numbers

7,482,391

Let's review the ways to write our number!

Review

Word form: seven million, four hundred eighty-two, three hundred ninety-one

Expanded form: $7,000,000 + 400,000 + 80,000 + 2,000 + 300 + 90 + 1$

Expanded notation:
 $(7 \times 1,000,000) + (4 \times 100,000) + (8 \times 10,000) + (2 \times 1,000) + (3 \times 100) + (9 \times 10) + (1 \times 1)$



Comparing Whole Numbers

Objectives:

Students will:

- Identify multi-digit whole numbers up into the millions place,
- Be able to compare two multi-digit numbers based on the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

Comparing Whole Numbers

What does it mean to compare?

To compare means to look for similarities or differences between two different things (or numbers).

- $<$ less than :

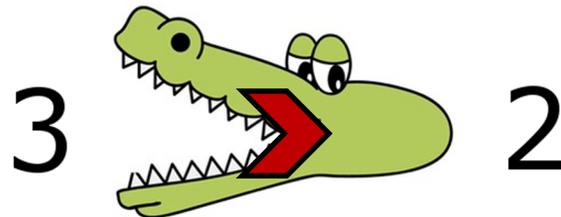
the number on the left has a value less than the number on the right

- $>$ greater than

the number on the left has a value greater than the number on the right

- $=$ equal to

The numbers have the same exact value



$$3 > 2$$

3 is greater than 2

Remember how to compare!

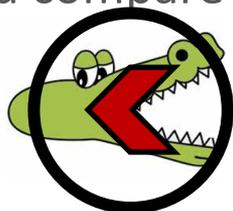
Gary Gator always wants to "eat" the bigger number!

How to Compare Numbers using Place Value

We can use place value to visualize how to compare large numbers

1. Compare the numbers in their designated periods
2. Look at the highest place value and compare those numbers

3,461,582



4,358,761

is less than

Millions Period

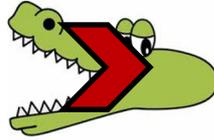
Thousands Period

Hundreds Period

Millions Period			Thousands Period			Hundreds Period		
Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
		3	4	6	1	5	8	2
		4	3	5	8	7	6	1

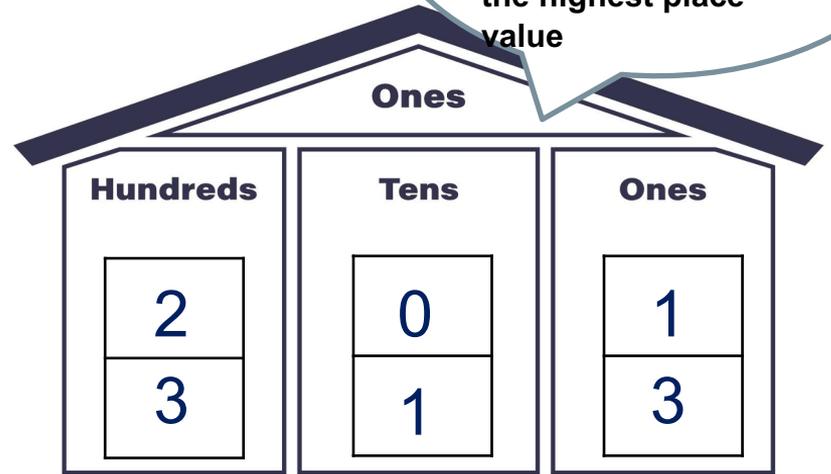
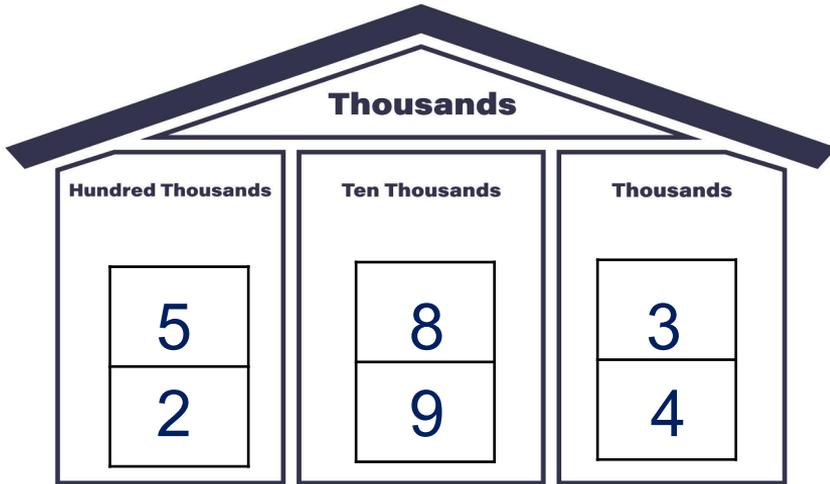
Look at the place values to compare the numbers!

583,201



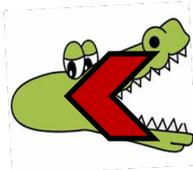
294,413

Notice that the number on the right had numbers larger in each place value leading up into the highest place value



Let's try another one!

946,109



947,604

Is less than

What was the highest place value that was different between our two numbers?

The Thousands Place! And...

$$7 > 6$$

So....

Hundred Thousands	Ten Thousands	Thousands
9	4	6
9	4	7

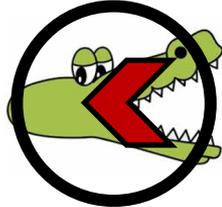
Hundreds	Tens	Ones
1	0	9
6	0	4

- Look at the highest place value where there's a difference to compare the large numbers

Time to Think!

The hundreds place!

5,358,543



5,358,790

is less than

Millions Period			Thousands Period			Hundreds Period		
Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
		5	3	5	8	5	4	3
		5	3	5	8	7	9	0