

Math 4

1-4 Comparing Whole Numbers

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| --- | --- | --- | --- |
| **Name:** |  | **Date:** |  |

|  |  |
| --- | --- |
| **Common Core Standards** | [CCSS.MATH.CONTENT.4.NBT.2](http://www.corestandards.org/Math/Content/4/NBT/A/2/)  Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. |

1-4 Comparing Whole Numbers

**Comparison Statements**

**What does it mean to compare?**

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

**How do we express a comparison?**

**After we look for similarities and differences between our numbers we can write a comparison statement.**

* **Are the numbers equal, or unequal?**

**If the numbers are unequal we can write an inequality statement.**

**To write an inequality statement we use these different symbols to express the inequality.**

**< less than : ​**

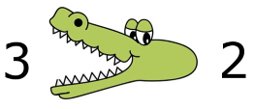
**the number on the left has a value less than the number on the right​**

**> 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 is greater than two**

**3 > 2**

Just remember Gary Gator always “eats” the bigger number!

**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​

Let’s compare these two numbers:

**3,461,582 4,358,761​**

Identify:

Place the numbers in their correct period

**Fill in the table below for the above numbers:**

|  |  |  |
| --- | --- | --- |
| **Millions Period** | **Thousands Period** | **Hundreds Period** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hundreds** | **Tens** | **Ones** | **Hundreds** | **Tens** | **Ones** | **Hundreds** | **Tens** | **Ones** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

**What was the highest place value where they had a difference?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Write your comparison statement as a sentence with the numbers expressed in their word form.**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Comparing Whole Numbers**

Situation:

1. **Chris has two large water jugs where he stores his pennies. He wanted to count his money out to know which one had a greater value than the other.**

Water jug 1 has 9,520 pennies in it.

Water jug 2 has 7,431 pennies in it.

Fill out the place value chart and express with the symbols > , < , or = to tell which water jug has the greater number of pennies in it.

|  |  |  |
| --- | --- | --- |
| **Millions Period** | **Thousands Period** | **Hundreds Period** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hundreds** | **Tens** | **Ones** | **Hundreds** | **Tens** | **Ones** | **Hundreds** | **Tens** | **Ones** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

9,520 \_\_\_\_\_\_\_ 7,431

Part A: Compare the numbers .

Which number should Gary Gator “eat”?

Place the appropriate symbol to express that.



1. 57,301 \_\_\_\_\_\_\_\_\_\_\_ 59,342

1. 782,465 \_\_\_\_\_\_\_\_\_\_\_ 825,913

Part B: Complete the Table below:

The first one is done for you

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **100,000 less** | **10,000 less** | **Number** | **10,000 more** | **100,000 more** |
| **2,795,043** | **2,885,043** | **2,895,043** | **2,905,043** | **2,995,043** |
|  |  | **376,092** |  |  |
|  |  | **7,525,276** |  |  |

Part C: Cut out the Gary Gators and match him with the expression.





**Gary**

|  |  |  |
| --- | --- | --- |
| 7,398 |  | 4,000 + 900 + 50 + 1 |
| 97,284 |  | ninety-seven thousand, four hundred eighty-six |
| (8x10,000)+(4x1,000)+(7x100)+(3x10)+(5x1) |  | 98,365 |
| 1,289,479 |  | one million, two-hundred eighty-six thousand, five hundred eighty |
| 8,093 |  | 8,000 + 900 + 90 + 3 |

**Answer Key**

|  |  |  |
| --- | --- | --- |
| **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** |

**What was the highest place value where they had a difference?**

**The millions place**

**Write your comparison statement as a sentence with the numbers expressed in their word form.**

**Three million, four hundred sixty-one thousand, five hundred eighty-two is less than Four million, three hundred fifty-eight thousand, seven hundred sixty-one.**

|  |  |  |
| --- | --- | --- |
| **Millions Period** | **Thousands Period** | **Hundreds Period** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hundreds** | **Tens** | **Ones** | **Hundreds** | **Tens** | **Ones** | **Hundreds** | **Tens** | **Ones** |
|  |  |  |  |  | **9** | **5** | **2** | **0** |
|  |  |  |  |  | **7** | **4** | **3** | **1** |

9,520 > 7,431

1. 57,301 < 59,342

1. 782,465 < 825,913

Part B:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **100,000 less** | **10,000 less** | **Number** | **10,000 more** | **100,000 more** |
| **2,795,043** | **2,885,043** | **2,895,043** | **2,905,043** | **2,995,043** |
| **276,092** | **366,092** | **376,092** | **386,092** | **476,092** |
| **7,425,276** | **7,515,275** | **7,525,276** | **7,535,276** | **7,625,276** |

Part C:

**Gary**

|  |  |  |
| --- | --- | --- |
| 7,398 |  | 4,000 + 900 + 50 + 1 |
| 97,284 |  | ninety-seven thousand, four hundred eighty-six |
| (8x10,000)+(4x1,000)+(7x100)+(3x10)+(5x1) |  | 98,365 |
| 1,289,479 |  | one million, two-hundred eighty-six thousand, five hundred eighty |
| 8,093 |  | 8,000 + 900 + 90 + 3 |