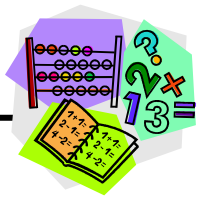
Comparing and Ordering Whole Numbers



Sometimes it is not easy to tell one butterfly from another. Sometimes it is difficult to tell numbers apart, too.

To compare numbers with the same number of digits:

- Determine which has the larger **first number** (the digit furthest left).

For example, 420 is larger than 240 because 4 is larger than 2.

To compare numbers that have a different number of digits:

- Look at the **place values** of each number. The number that extends the furthest to the left is the larger number.

For example, 240 is larger than 85 because 2 is further to the left than 8 when placed on a place value chart. The number 2 in 240 has a higher place value.

Example

Comparing and ordering the populations of countries around the world involves working with large numbers!

Ravneet and Azim noted the following numbers from their textbook:

13 395 000 15 058 600 20 100 000

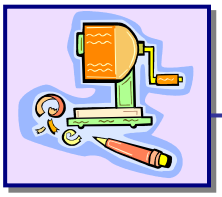
A place value chart, like the one below, can help order and compare the numbers recorded by Ravneet and Azim.

Place Value									
One Billions	Hundred Millions	Ten Millions	One Millions	Hundred Thousands	Ten Thousands	One Thousands	Hundreds	Tens	Ones
		1	3	3	9	5	0	0	0
		1	5	0	5	8	6	0	0
		2	0	1	0	0	0	0	0

2 has a value greater than **1**, so 20 100 000 has the greatest value.

5 has a value greater than **3**, so 15 058 600 has the second greatest value.

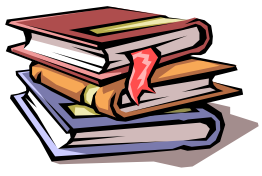
20 100 000 > 15 058 600 > 13 395 000



Practice: Comparing and Ordering Whole Numbers

1. Bill is keeping a log of the books that he reads and the number of pages in each book. Here is his list for the month of May:

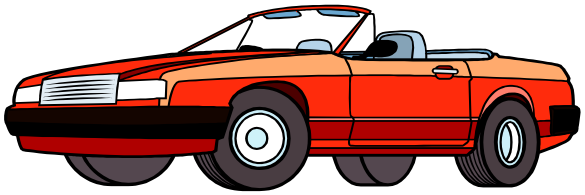
The Macabre Incident — 1205 pages
Screaming Danger — 786 pages
Fighting Times — 876 pages
Terror Below — 1148 pages
Mission Achieved — 250 pages
Awesome Antics — 184 pages.



Put these books in order from least to greatest according to the number of pages.

2. Melba is pricing used cars. She is interested in the following models:

1994 Honda	$2500.00
1999 Mazda	$7850.00
1998 Datsun	$5025.00
2000 Saturn	$8650.00
1996 Toyota	$3600.00



Place the cars in order from highest price to lowest price.

3. Jody's social studies class is studying economics. Students were asked to form groups and invest the same amount of pretend money in a variety of stocks. Jody's group selected 6 different stocks and, by the end of the activity, had earned the following amounts of money:

Investment 1	$ 7635.00
Investment 2	$ 17 672.00
Investment 3	$ 92 450.00
Investment 4	$ 6892.00
Investment 5	$ 89 032.00
Investment 6	$ 28 782.00

Which investment was the best choice during this period of time?
Which was the poorest choice?

List the investments in order from the one that made the least amount of money to the one that made the greatest amount of money.

4. Find a partner to work with. Each of you needs a copy of the charts below.

The Challenge: Race to the finish!

The first person to fill in both charts correctly wins the race. Compare your answers with your partner. Discuss and correct any errors.

Complete the following chart by filling in the number that belongs in each place value.

				Place	**Value**				
	Hundred Millions	Ten Millions	One Millions	Hundred Thousands	Ten Thousands	One Thousands	Hundreds	Tens	Ones
2500						**2**	**5**	**0**	**0**
10 300									
1 650 975									
840 000									
3 000 000									
210 000 000									
52 000									

Place the values in order from LEAST to GREATEST in the chart below. Be sure to include the example.

Least **Greatest**

5. Place the numbers in order from LEAST to GREATEST.

a. 2340 3564 2198 2975 3529

_____

b. 23 642 23 562 21 728 20 953 32 529

_____

c. 312 320 431 565 426 190 322 112 398 945

_____

6. Place the numbers in DECREASING ORDER.

a. 1 435 612 3 100 395 3 099 875 1 299 580 2 355 315

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b. 63 745 324 63 345 743 73 126 843 61 737 843 72 513 853

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c. 3 435 612 5 100 395 5 099 875 3 299 580 4 355 315

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