

Comparing and Ordering Numbers: math lesson, Grade 2 – download the PDF

Which pile is bigger, 243 pennies or 238 pennies? Which hill is taller, 420 feet or 402 feet? In this chapter you will learn how to compare numbers up to 1,000, put them in order, find them on a number line, and count forward and backward like a pro.

1. Reading three-digit numbers

Every digit in a number has a job that depends on its place. In 586, the 5 is in the hundreds place, the 8 is in the tens place, and the 6 is in the ones place. So 586 means 5 hundreds, 8 tens, and 6 ones.

D Place value

The value of a digit depends on where it sits. In **586**, the digit 5 stands for **500**, the digit 8 stands for **80**, and the digit 6 stands for **6**. We can write **$586 = 500 + 80 + 6$** .

The place on the far left has the biggest value. That is why the hundreds digit matters most when we compare numbers.

2. Greater than, less than, equal to

To compare two numbers we use three symbols. They always point to the smaller number, and the open side faces the bigger number.

Symbol	Meaning	Example
$>$	is greater than	$700 > 70$
$<$	is less than	$70 < 700$
$=$	is equal to	$300 = 200 + 100$

 **Zyro says**

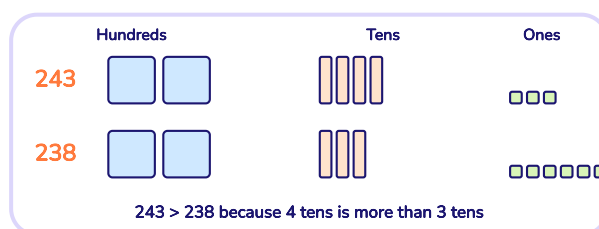
Picture the symbol as a hungry mouth. It always opens toward the number that is bigger, because it wants the bigger meal!

 **Careful**

A number with more digits is bigger only when the digits are all counted in the same way. For three-digit numbers, never decide by looking at the last digit first. Start on the left.

3. Comparing hundreds, tens, and ones

Look at the blocks below. Both numbers have 2 hundreds, so we must look at the next place, the tens.



M**How to compare two three-digit numbers**

1. Compare the hundreds digits. If they are different, the bigger digit wins.
2. If the hundreds are the same, compare the tens digits.
3. If the tens are also the same, compare the ones digits.
4. If all three digits match, the numbers are equal.

E**Example 1**

Compare **536** and **563**.

The hundreds are the same: 5 and 5. The tens are 3 and 6, and **3 < 6**. So **536 < 563**.

E**Example 2**

Compare **784** and **748**.

The hundreds are the same (7). The tens are 8 and 4, and **8 > 4**. So **784 > 748**. We did not need to look at the ones.

4. Ordering numbers

To put numbers in order, compare them two at a time. **Least to greatest** means starting with the smallest number and ending with the biggest. **Greatest to least** means the other way around.

E**Example 3**

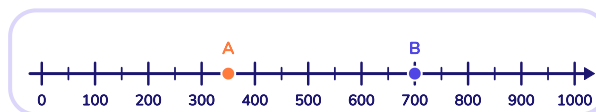
Put **407**, **740**, **470**, and **704** in order from least to greatest.

Sort by hundreds first: 407 and 470 have 4 hundreds, and 740 and 704 have 7 hundreds. Between 407 and 470, the tens are 0 and 7, so **407 < 470**. Between 704 and 740, the tens are 0 and 4, so **704 < 740**.

Answer: **407, 470, 704, 740**.

5. Number lines to 1,000

On a number line, numbers get bigger as you move to the right. So the number that is farther to the right is always the greater number.



Point A is halfway between 300 and 400, so it is at 350. Point B is at 700. Since B is to the right of A, we know **700 > 350**. When the marks between the labels are not numbered, count how many equal steps there are. Here the small marks show steps of 50.

6. Adding and subtracting 10 and 100 in your head

These jumps are easy because only one digit changes. Adding 10 makes the tens digit go up by one. Adding 100 makes the hundreds digit go up by one. Subtracting does the opposite.

- **348 + 10 = 358** (the tens digit goes from 4 to 5)
- **348 + 100 = 448** (the hundreds digit goes from 3 to 4)
- **348 - 10 = 338** and **348 - 100 = 248**

Be careful when a digit reaches 9. Adding 10 to **395** gives **405**, because 10 tens make a new hundred. Adding 10 to **990** gives **1,000**.

7. Counting forward, counting backward, and skip counting

Counting forward means saying the next numbers: 697, 698, 699, 700. Counting backward means saying the numbers that come before: 403, 402, 401, 400, 399. Notice how 700 and 400 are reached by a change in the hundreds digit.

Skip counting means jumping by the same amount each time. Here are some patterns you should know.

Count by	Pattern from a start number
2s	306, 308, 310, 312, 314
5s	135, 140, 145, 150, 155
10s	420, 430, 440, 450, 460
100s	125, 225, 325, 425, 525

E Example 4

Skip count by 5s: **135, 140, 145, __, __**.

Each jump adds 5. So $145 + 5 = 150$ and $150 + 5 = 155$. The numbers end in 0 or 5 when you count by 5s.

P Patterns to remember

Counting by 10s changes only the tens digit. Counting by 100s changes only the hundreds digit. Counting by 5s always ends in 0 or 5.

Key takeaways

- Compare three-digit numbers from the left: hundreds first, then tens, then ones.
- The symbols are $>$ (greater than), $<$ (less than), and $=$ (equal to). The open side faces the bigger number.
- To order numbers, compare them two at a time. Least to greatest starts with the smallest.
- On a number line, the number on the right is the greater one.
- Adding or subtracting 10 changes the tens digit. Adding or subtracting 100 changes the hundreds digit.
- Skip counting by 2s, 5s, 10s, and 100s follows a pattern that you can predict.



Test yourself: quick challenge for Grade 2

[Change level](#)

Level : **Grade 2**

6 random questions, instant feedback.



Start the challenge



 **Speed drill for Grade 2: how many in 60 seconds?**

Keep exploring with Zyro

Math practice

Comparing and Ordering Numbers: math practice, Grade 2

Math tests

Comparing and Ordering Numbers: math test, Grade 2

Math quizzes

Comparing and Ordering Numbers: math quiz, Grade 2

Math practice

Adding and Subtracting Within 100: math practice, Grade 2

 Math practice

Adding and Subtracting Within 1,000:
math practice, Grade 2

 Math tests

Adding and Subtracting Within 100:
math test, Grade 2

Zyro vous emmène sur nos sites partenaires

Embarquez pour d'autres planètes du savoir et leurs applis.

Décollage