

Grade 2 · Place Value to 1,000 · Lesson

Common Core 2.NBT.A.1, 2.NBT.A.3 · mathovore.fr

A three-digit number is built from hundreds, tens, and ones. The number 345 has 3 hundreds, 4 tens, and 5 ones. Ten ones make one ten, and ten tens make one hundred. We can write 345 in standard form, in expanded form as $300+40+5$, or in word form as three hundred forty-five.

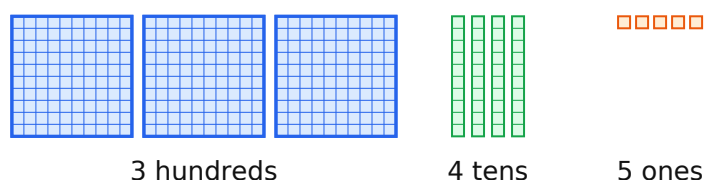
Grade 2 Common Core: 2.NBT.A.1 · 2.NBT.A.3

Key facts:

- A three-digit number has a hundreds digit, a tens digit, and a ones digit.
- The value of a digit depends on its place: in 482, the 8 is worth 80.
- Ten ones make 1 ten, and ten tens make 1 hundred.
- A zero holds a place: 706 has 7 hundreds, 0 tens, and 6 ones.
- Standard, expanded, and word form are three ways to write the same number.

What are hundreds, tens, and ones?

Every digit in a three-digit number has a place. The digit on the right tells how many ones. The middle digit tells how many tens. The digit on the left tells how many hundreds. Base-ten blocks show this well: a flat is 100, a rod is 10, and a small cube is 1.



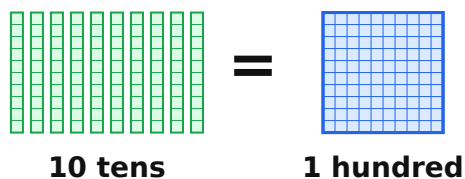
Three flats, four rods, and five cubes make the number 345.

Place value

The value of a digit depends on its place. In 345, the 3 means 300, the 4 means 40, and the 5 means 5.

How do ten tens make one hundred?

Ten ones can be bundled into one ten. Ten tens can be bundled into one hundred. When there are 10 tens, trade them for 1 hundred flat. Ten hundreds make 1,000.



10 tens rods match 1 hundred flat, because 10 tens is 100.

How do you read a place value chart?

A place value chart keeps each digit in its place. Zero is important. It holds a place when there are none of that group. In the chart below, 7 hundreds, 0 tens, and 6 ones make 706. Without the zero, we would see 76, which is much smaller.

Hundreds	Tens	Ones
7	0	6

The zero in the tens place shows there are no tens in 706.

How do you write a number in three ways?

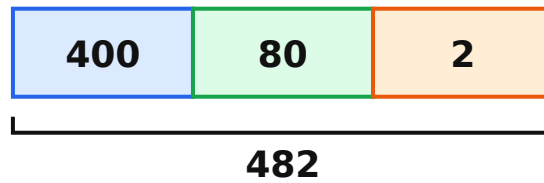
A number can be written in standard form (digits), expanded form (the value of each digit added together), and word form (the words we say).

Form	First number	Second number
Standard	345	706
Expanded	$300+40+5$	$700+6$
Word	three hundred forty-five	seven hundred six

Follow these steps to rewrite any three-digit number.

1. Find the digit in each place.
2. Write the value of each digit: hundreds, then tens, then ones.
3. Join the values with plus signs for expanded form.
4. Say the number aloud and write the words, with a hyphen between the tens and the ones.

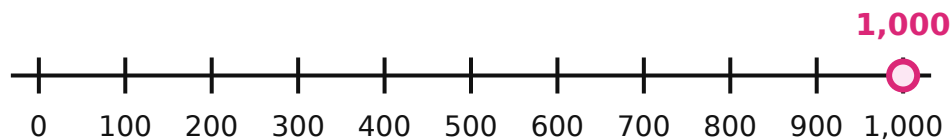
Example: Write 482 in expanded form and word form. The 4 is in the hundreds place, so it is worth 400. The 8 is in the tens place, so it is worth 80. The 2 is in the ones place, so it is worth 2. Expanded form: $400+80+2$. Word form: four hundred eighty-two.



The parts 400, 80, and 2 are added to make 482.

What comes after 999?

Add one more to 999 and every place bundles up. Ten ones make a ten, ten tens make a hundred, and ten hundreds make 1,000. The number line counts by hundreds all the way to one thousand.



Ten jumps of 100 reach 1,000.

Place Value to 1,000: frequently asked questions

What is place value?

Place value means the value of a digit depends on where it sits in the number. In 253, the 5 is in the tens place, so it is worth 50. In 523, the 5 is in the hundreds place, so it is worth 500.

Why do we need a zero in 506?

The zero holds the tens place. It shows that there are 5 hundreds, 0 tens, and 6 ones. If we left it out, the number would look like 56, which is a different number.

How many tens are in 100?

There are 10 tens in 100. Ten rods of 10 can be traded for one flat of 100. That is why 300 is the same as 30 tens.

How do you write a number in word form?

Say the hundreds first, then the tens and ones. For 275, write two hundred seventy-five. Use a hyphen for the numbers from 21 to 99 that have two parts, like seventy-five.

What is expanded form?

Expanded form shows the value of each digit added together. For 346, expanded form is $300+40+6$. It helps us see how many hundreds, tens, and ones are in the number.