5. Customs with Numbers

Numbers are important in everyone's life. In the U.S., you may see different customs with numbers than in your home country.

Most important: write numbers in the American style! European number symbols are different from American symbols. Handwritten numbers are different from typed numbers.

1 2 3 4 5 6 7 8 9

Reading numbers

Americans have several different conventions for reading numbers.

The way we read or say a number depends on how we are using it.

For example: 2397

If we're counting, this number is *two thousand three hundred ninety-seven.*

If the number is a year, it's *twenty-three ninety-seven.* Someone's address: *Twenty-three ninety-seven* Main Street.

A price to pay: $2,397: *Twenty-three hundred ninety-seven dollars.* (Note: Americans use a **comma*** to separate thousands.)

If we are using the number as a **PIN*** number or part of a telephone number: *Two three nine seven.* If someone asks for our telephone number, we state each number, but we group the number in chunks: (201) 555 1832 (*two oh one, five five five, one eight three two.*

Reading numbers about money:

$ = Dollars. The decimal point (dot) comes between the whole dollars and the cents. We read the decimal point as "and." $3.56 is three dollars *and* fifty-six cents. Someone might quickly say the price is three fifty six.

¢ = Cents. This is the symbol for cents. If a price is 25 cents we can write it two ways: 25¢ (the symbol goes *after* the number); or: $.25. (The dollar symbol and a decimal point go *before* the number. It's a good idea to make it clearer with a zero: $0.25. We still read it *twenty-five cents.*

People often write the letter *K* to represent *thousands* of dollars. "Jon earns *$65 K* a year."I'd like a job that pays *a hundred K."*

Here's how to read math symbols:

4 + 2 = 6   Four *plus* two *equals* six.

7 - 3 = 4   Seven *minus* three *is* four.

Children might first learn: Seven *take away* three is four.

6 x 5 = 30   Six *times* five is thirty.

8 ÷ 2 = 4   Eight *divided by two* is four.

Math expressions

Add these numbers: 1 + 5 + 10
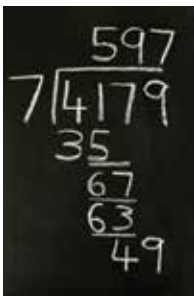
Subtract 10 from 15

Multiply 6 times 8

Divide 49 by 7

Long division

The way American children learn to show division work is different from the way in other countries:

4,179 divided by 7 looks like this:

Teachers often ask students to show their work. But the European or Asian way of showing work will confuse a teacher. Some students have learned to do these problems in their head. There's no work to show.

If you show your work, write the word "Answer" or "Ans" next to the answer.

Reading fractions: The **ordinal*** number is used for the **denominator*** of the fraction.

Numerator*:   1

Denominator: 4

1/4 = one fourth

1/2 = one half

3/4= three fourths

2/3 = two thirds

5/8 = five eighths

Other symbols with numbers

This symbol can be the *pound sign*, the *number sign,* or *hash tag* on **Twitter***.

When # is *in front* of a number, as in #5, we say *number* five.

When # is *after* a number, it means *pounds*. Jack wrote 3# of hamburger, 5# of potatoes on his shopping list.

Messages on automatic answering devices sometimes say, *Enter your pass code followed by the pound sign.*

Reading other math symbols:

3% = three percent

18 º = eighteen degrees

x < y   x is less than y.

y > x   y is greater than x.

ø = nothing

A = B A equals B.

A ≠ B A does not equal B.

When talking about the **score*** in a game: Our team won the game 45 - 44 (forty-five to forty-four). Last week, we lost a game by two points.

Roman numerals*

With seven letter symbols, Romans could write numbers up to many thousands:

I (one), V (five), X (ten), L (fifty), C (one hundred), D (five hundred), M (one thousand)

The letters' position shows whether to add or subtract the next letter's value.

Examples: VI = six (5 + 1)

IV = four (5-1)

LX = sixty (50+10)

XL = forty (50-10).

MMXXIV= 2,024 (2000+20+ [5-1])

MDCCCXLII = 1,842 (1000 +500 + 300+ [50-10] +2)

It was quite difficult to do math with Roman numerals. Business and trade became easier after **Hindu***-Arabic numerals came into use. "Arabic" numerals contained zero and made math easier.

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Let's talk about it.

1. How would you read these numbers?

   a. He lives at 2135 Oak Street.   b. My phone number is 201-555-2345.

   c. The house cost $249,999.   d. It has 1650 square feet of living room.

   e. I counted up to 1,399.   f. She spent $95.25.

   g. The toy cost $0.99.

2. Show your work when you divide 699 by 33.

3. Write out the words for these fractions and mixed numbers:

   a. 5/8   b. 3/4

   c. 15/16   d. 2 2/3

4. Are there differences in numbers in your home language?

5. Write these Roman numerals in Arabic numerals:

   a. MM   b. XCV

   c. DXXIII   d. MMXXVI

Using new words:

Match the word with its meaning.

_____ 6. a mark that separates the numerals for thousands: 2,345 for example

_____ 7. the bottom number in a fraction

_____ 8. the pound or number sign

_____ 9. He earns $40 __ per year.

_____ 10. a symbol for *plus*

_____ 11. a mark to separate whole numbers from decimals, for example: 2.5

A. #

B. decimal point

C. denominator

D. comma

E. K

F. +

Write the correct word in each sentence. Choose from this list:

long division   degrees   fraction   Roman   multiply

12. To know the cost of five pairs of socks, _____ five times the cost of one pair of socks.

13. Showing how to divide 65,979 by 478 is an example of _____.

14. The temperature yesterday was 55 _____ Fahrenheit.

15. An amount smaller than a whole number is a _____.

16. _____ numerals use the letters I, V, X, L, C, D, and M.