



Place Value of Decimals Notes

Decimals are numbers that use place value and a **decimal point** to show tenths, hundredths, thousandths and so on. The number to the left of the decimal point is the whole number, while the number to the right is the decimal part and is less than 1.

thousands	hundreds	tens	ones	tenths	hundredths	thousandths
9	4	2	6	8	3	1

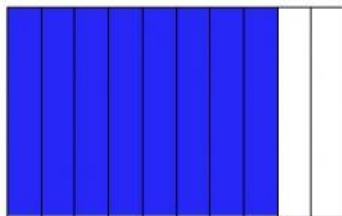
Whole numbers decimal part

What is the value?

You can use a place value chart to find the value of each digit in a decimal.

Example

8 is in the tenths place, so the value of the eight is **0.8**.

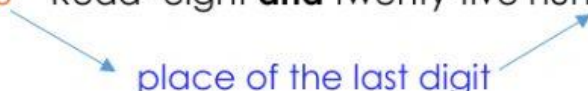


Reading Decimals

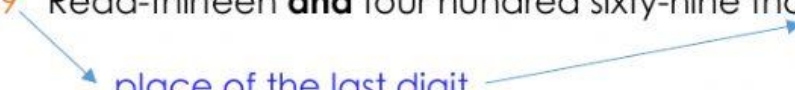
- ✚ Say the number in front of the decimal point first.
- ✚ Read "and" as the decimal point.
- ✚ Say the number after the decimal and add the place of the last digit.

Examples

8.**25** Read- eight **and** twenty-five hundredths



13.**469** Read-thirteen **and** four hundred sixty-nine thousandths



If there is a 0 in front of the decimal point, you can skip saying zero and simply say the number after the decimal point.

0.89 Read- eighty-nine hundredths

Expressing Decimals

A decimal can be written in:

Standard Form: 32.38

Word Form: thirty-two and thirty-eight hundredths

Expanded Form: $30 + 2 + 0.3 + 0.08$

To write a decimal in expanded form, write the value of each digit.