# REPRESENTING DECIMALS AND FRACTIONS

**place value** **place name**

In every number, each digit is in a different **place**. The **place value** of the digit is the name of its place.

64.297

tens ones tenths hundredths thousandths

**value**

Each digit in a number has a certain **value**. The value tells what the digit is worth.

31.805

The **place value** of the 0 is hundredths.

The **value** of the 8 is 8 tenths.

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When you **represent** a number, you are showing it in some way.

0.084 6.21

**standard form**

Decimals can be written in **standard form**. The decimal separates the whole and the parts.

$0.08 + 0.004$

$6 + 0.2 + 0.01$

**expanded form**

If you use **expanded form** (or **expanded notation**), you tell how much each digit is worth.

$\frac{84}{1000}$ $6\frac{21}{100}$

Decimals can be written as a fraction or a mixed number. A mixed number has a whole and a fraction.

eighty-four thousandths six *and* twenty-one hundredths

**word form**

You can also represent numbers using words, in **word form**. The word "and" is used to separate wholes and parts.