

# Decimal Notation in the United States

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In the United States, we use the decimal or period (“.”) to represent the difference between whole numbers and partial numbers. We use the comma (“,”) to separate groups of three places on the whole numbers side. This might be different from the way you currently write numbers.

For example, the number 1 million:

Some non-U.S. Countries:	1.000.000,00
U.S.:	1,000,000.00

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It is also very important to know the names for the digit places in decimal notation. Here are the names in English for the United States:

<b>Trillions</b>																							
	<b>Hundred Billions</b>																						
		<b>Ten Billions</b>																					
			<b>Billions</b>																				
				<b>Hundred Millions</b>																			
					<b>Ten Millions</b>																		
						<b>Millions</b>																	
							<b>Hundred Thousands</b>																
								<b>Ten Thousands</b>															
									<b>Thousands</b>														
										<b>Hundreds</b>													
											<b>Tens</b>												
												<b>Ones</b>											
													<b>Tenths</b>										
														<b>Hundredths</b>									
															<b>Thousandths</b>								
																<b>Ten Thousandths</b>							
																	<b>Hundred Thousandths</b>						
																		<b>Millionths</b>					
<b>1</b>	<b>,</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>,</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>,</b>	<b>8</b>	<b>9</b>	<b>0</b>	<b>,</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>.</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>

Other than the “ones” place, the places to the right of the decimal are almost the same as the places to the left of the decimal, but with an additional “th” added at the end.

# How to Say Common Math Terms in U.S. English

## Numbers:

### Big Numbers:

In the U.S. we separate big numbers into groups of three of the following types:

Ones, Thousands, Millions, Billions, ...

For example:           1,234,567 has three groups

Millions: 1

Thousands: 234

Ones: 567

We say each group as a separate number, followed by the group type. So, we would say:  
“One million, two hundred and thirty-four thousand, five hundred and sixty-seven”

### Decimals:

When there is a decimal, we say it a few different ways:

0.4 can be expressed as “four tenths,” “zero point four,” or just “point four”

As the number gets bigger, we tend to just say the numbers

0.4535 is best expressed as “point four five three five”

If there is a whole number, we say the whole number first, “and,” and then the decimal  
4,532.68 is “Four thousand, five hundred and thirty-two, and sixty-eight hundredths” or  
“Four thousand, five hundred and thirty-two, point six eight”

## Basic operations:

+	add, plus, sum	the sum of 1 and 2 is 3 1 plus 2 is 3
-	subtract, minus, difference, fewer	5 subtract 3 is 2 5 minus 3 is 2 the difference between 3 and 5 is 2 6 fewer than 10 is 4
*	multiply, times, product	5 times 6 is 30 30 is the product
÷ /	divide, divisor, dividend, quotient	8 divided by 4 is 2 4 divided into 8 is 2 8 is the dividend, 4 is the divisor, 2 is the quotient

## Fractions:

We say these by first stating the numerator and then saying the denominator as an ordinal number (with a “th” at the end). If the numerator is 1, then the ordinal is singular. Otherwise, it is plural.

For example:  $\frac{1}{5}$  is “one fifth” while  $\frac{6}{5}$  is “six fifths”

### Short list of ordinals:

2: half or halves	3: third or thirds
4: fourth or fourths	5: fifth or fifths
6: sixth or sixths	7: seven or sevenths
8: eighth or eighths	9: nine or ninths
10: tenth or tenths	11: eleventh or elevenths
12: twelfth or twelfths	13: thirteenth or thirteenths
...	
21: twenty-first or twenty-firsts	22: twenty-second or twenty-seconds
23: twenty-third or twenty-thirds	24: twenty-fourth or twenty-fourths
...	
100: hundredth or hundredths	1000: thousandth or thousandths

As the denominator gets bigger, we are more likely to say the numerator “over” the denominator

For example:  $\frac{4}{745283}$  is best expressed as either “four over seven four five two eight three”

or “four over seven hundred and forty-five thousand, two hundred and eighty-three”

## Exponents:

When we have  $x^2$  or  $x^2$ , we say “x to the power of 2” or “x to the second power”

We call x the base and 2 the exponent

Special exponent names:

$x^2$  is called “x squared”

$x^3$  is called “x cubed”

We say roots in a similar way

$\sqrt{4}$  is “the square root of 4” or “the second root of 4”

$\sqrt[3]{8}$  is “the cubed root of 8” or “the third root of 8”

$\sqrt[5]{32}$  is “the fifth root of 32”

When the result of a square root is an integer, we call it a perfect square.

For example, these are perfect squares: 4, 9, 16, 25, 36, 49, 64...

# United States Customary Units of Measurement

## Length:

<b>U.S. Unit:</b>	<b>Other U.S. Unit:</b>	<b>Metric Equivalent (approximate):</b>
1 inch (in)		2.5 centimeters
1 foot (ft)	12 inches	0.3 meters
1 yard (yd)	3 feet	0.9 meters
1 mile (mi)	5,280 feet	1.6 kilometers

## Liquid Volume:

<b>U.S. Unit:</b>	<b>Other U.S. Unit:</b>	<b>Metric Equivalent (approximate):</b>
1 teaspoon (tsp)		4.9 mL
1 tablespoon (Tbsp)	3 teaspoons	14.8mL
1 fluid ounce (fl oz)	2 tablespoons	29.6 mL
1 cup (cp)	8 fluid ounces	236.6 mL
1 pint (pt)	2 cups	473.2 mL
1 quart (qt)	2 pints	0.95 L
1 gallon (gal)	4 quarts	3.8 L

## Mass/Weight:

<b>U.S. Unit:</b>	<b>Other U.S. Unit:</b>	<b>Metric Equivalent (approximate):</b>
1 ounce (oz)		28.3 grams
1 pound (lb)	16 ounces	453.6 grams
1 ton	2,000 pounds	907.2 kilograms

## Temperature:

Degrees Fahrenheit

Water Freezing Point: 32 degrees F

Water Boiling Point: 212 degrees F

Conversion:  $F = \frac{9}{5}C + 32$       or       $C = \frac{5}{9}(F - 32)$