### **Standard Notation Expanded Notation**

Begin by identifying the place value of each digit in the number.

1.

Number: 402,810

	Place Value Chart													
1	trillions billions			millions			thousands			ones				
									4	0	2	8	1	0
hundreds	tens	ones	hundreds	tens	ones	hundreds	tens	səuo	hundreds	tens	səuo	hundreds	tens	səuo

2. Starting from the leftmost digit, write the digit followed by its place value position.

A plus sign "+" separates each place value.

Number: 402,810

tart er

3. It is common practice to remove all zero-place values to produce a reduced expanded notation.

expanded notation

4 hundred thousands + 0 ten thousands + 2 thousands + 8 hundreds + 1 ten + 0 ones

4 hundred thousands + <del>0 ten thousands</del> + 2 thousands + 8 hundreds + 1 ten + <del>0 ones</del>

4 hundred thousands + 2 thousands + 8 hundreds + 1 ten

reduced expanded notation

<sup>\*</sup>Note: Place values end with an "s" to indicate they are plural when preceded by all digits except 1.

#### Standard Notation Word Name

Begin by identifying the periods within the number.

1.

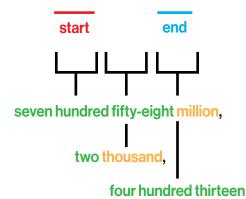
2.

Number: 758,002,413

Place Value Chart														
1	trillions billions			millions			thousands			ones				
						7	5	8	0	0	2	4	1	3
hundreds	tens	ones	hundreds	tens	seuo	hundreds	tens	səuo	hundreds	tens	ones	hundreds	tens	seuo

Starting from the leftmost period, write the three-digit group name followed by the period name except for the ones period. Commas separate each period.

Number: 758,002,413



#### seven hundred fifty-eight million, two thousand, four hundred thirteen

\*Note: All digits except 0 in hundreds place values are followed by the word hundred in word form.

Example: 702,810,000 seven hundred two million, eight hundred ten thousand

\*\*Note: The tens and ones place values give a combined name. Numbers 1 through 20 are single words.

Numbers 21 through 99 are <a href="https://www.numbers.numbers.numbers">https://www.numbers.numbe

Example: 219 two hundred nineteen

272 two hundred seventy-two

290 two hundred ninety

\*\*\*Note: Periods containing 000 are omitted from the word name.

Example: 14,000,002 fourteen million, two

### **Expanded Notation** Standard Notation

	7 ten millions + 2 millions + 5 hundred thousands + 2 tens							
	reduced expanded notation							
1.	Convert the number from reduced expanded notation to expanded not							

7 ten millions + 2 millions + 5 hundred thousands + 0 ten thousands + 0 thousands + 0 hundreds + 2 tens + 0 ones expanded notation

2. Identify each of the periods in the expanded notation.

7 ten millions + 2 millions + 5 hu	undred thousands + 0 ten thousands + 0 thousa	ands + 0 hundre	eds + 2 tens + 0 ones
millions	thousands		ones

3. Recombine from expanded notation to standard notation starting from the leftmost digit.

Commas separate each period.

7 ten millions + 2 millions + 5 hundred thousands + 0 ten thousands + 0 thousands + 0 hundreds + 2 tens + 0 ones

start

end

millions

thousands

ones

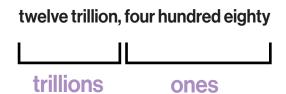
72,500,020

#### Word Name Standard Notation

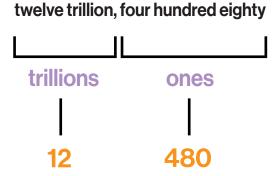
Identify each of the periods in the word form.

1.

2.



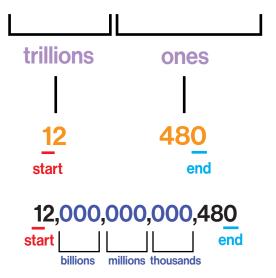
Identify each of the digits in the word form.



3. Recombine from word form to standard notation starting from the leftmost digit. Remember periods containing 000 may be omitted but must be accounted for in standard notation.

Commas separate each period.

twelve trillion, four hundred eighty



### **Expanded Notation** — Word Form

Convert the number from reduced expanded notation to expanded notation.
 reduced expanded notation

 $\begin{array}{c} \text{4 hundred millions} + \text{2 millions} + \text{2 hundreds} \\ I \end{array}$ 

4 hundred millions + 0 ten millions + 2 millions + 0 hundred thousands + 0 ten thousands + 0 thousands + 2 hundreds + 0 tens + 0 ones

expanded notation

2. Identify each of the periods in the expanded notation.

4 hundred millions + 0 ten millions + 2 millions + 0 hundred thousands + 0 ten thousands + 0 thousands + 2 hundreds + 0 tens + 0 ones

millions
thousands
ones

Recombine from expanded notation to word form starting from the leftmost period.
 Omit any periods that contain 000 from the word name.
 Commas separate each period.

4 hundred millions + 0 ten millions + 2 millions + 0 hundred thousands + 0 ten thousands + 0 thousands + 2 hundreds + 0 tens + 0 ones

millions
thousands
ones

start
end

four hundred two million,

two hundred

four hundred two million, two hundred

### **Word Name Expanded Notation**

Identify each of the periods in the word form.

1.

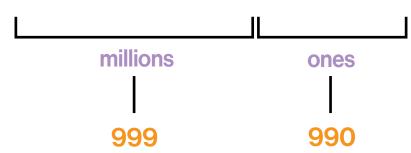
2.

nine hundred ninety-nine million, nine hundred ninety

millions ones

Identify each of the digits in the word form.

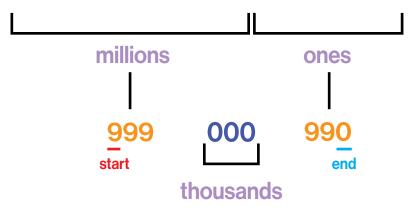
nine hundred ninety-nine million, nine hundred ninety



3. Recombine from word form to expanded notation starting from the leftmost digit. Remember periods containing 000 may be omitted but must be accounted for in expanded notation.

Plus signs "+" separate each period.

nine hundred ninety-nine million, nine hundred ninety



9 hundred millions +9 ten millions + 9 millions + 0 hundred thousands + 0 ten thousands + 0 thousands + 9 hundreds + 9 tens + 0 ones

### Word Name Expanded Notation

4. Change from expanded notation to reduced expanded notation.

expanded notation

9 hundred millions +9 ten millions + 9 millions + 0 hundred thousands + 0 ten thousands + 0 thousands + 9 hundreds + 9 tens + 0 ones

 $9 \ hundred \ millions + 9 \ ten \ millions + 9 \ millions + 9 \ hundred \ thousands + 0 \ ten \ thousands + 0 \ thousands + 9 \ hundreds + 9 \ tens + 0 \ tens + 0$ 

9 hundred millions + 9 ten millions + 9 millions + 9 hundreds + 9 tens

reduced expanded notation