



# MATHEMATICS 501

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## I. Part One

### Objectives

To learn numbers and number words through 1,000,000

To review operations for addition and subtraction

To review operation symbols

▲ Our number system is based on ten **digits**.

0      1      2      3      4      5      6      7      8      9

■ Digits are combined to form a number that has a value.

■ The number of digits and the arrangement of digits gives the number its value.

1.1 Arrange these numbers in number order.

269

5,296

42

4

25,092

620,592

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_ d. \_\_\_\_\_ e. \_\_\_\_\_ f. \_\_\_\_\_

■ Numbers with more than one digit are multi-digit numbers.

■ The place value chart shows the number value for multi-digit numbers.

— thousands —			— units —		
hundreds	tens	ones	hundreds	tens	ones
4	6	5	2	3	7

465,237 is read, "four hundred sixty-five thousand,  
two hundred thirty-seven."

We use a hyphen to join the tens' numbers and ones' numbers.

We write a comma between the thousands' place and hundreds' place.

1.2 The main headings of the number chart are thousands and units.

What are the places under the main headings for thousands and units?

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

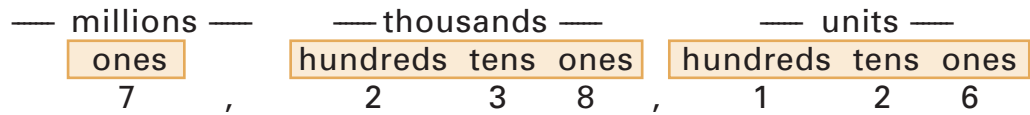
1.3 Write the number words.

a. 3,664 \_\_\_\_\_

b. 15,152 \_\_\_\_\_

c. 346,841 \_\_\_\_\_

- The next main heading on the place value chart is millions.



7,238,126 is read, "seven million, two hundred thirty-eight thousand, one hundred twenty-six."

- We use a hyphen to join the tens' numbers and ones' numbers.
- We write a comma between the thousands' place and hundreds' place.
- We write a comma between the millions' place and thousands' place.

**1.4** Write the number word.

- a. 6,281,534 \_\_\_\_\_  
 \_\_\_\_\_
- b. 8,693,271 \_\_\_\_\_  
 \_\_\_\_\_

Zero is a special digit. Zero is a place holder.

- It tells us that there is no value in that place.
- When there is a zero in a number, we do not read the place.

1,056,021 is read, "one million, fifty-six thousand, twenty-one."  
 There is no number to read in the hundred thousands' place.  
 There is no number to read in the hundreds' place.

**1.5** Write the number word.

- a. 5,036,204 \_\_\_\_\_  
 \_\_\_\_\_
- b. 7,603,250 \_\_\_\_\_  
 \_\_\_\_\_

**1.6** Match.

- |          |           |   |
|----------|-----------|---|
| a. _____ | 45,632    | 1. four million, four hundred thirteen thousand, sixty-two                    |
| b. _____ | 401,532   | 2. five million, sixty-three thousand, two hundred thirty-one                 |
| c. _____ | 5,463,231 | 3. forty-five thousand, six hundred thirty-two                                |
| d. _____ | 5,063,231 | 4. five million, four hundred sixty-three thousand,<br>two hundred thirty-one |
| e. _____ | 4,413,062 | 5. four hundred one thousand, five hundred thirty-two                         |

▲ **Addition facts** are all of the one-digit numbers with their sums.

■ **Subtraction facts** are related to addition facts.  
Together they make a **family of facts**.

1.7 Write the family of facts.

4, 7, 11

6, 8, 14

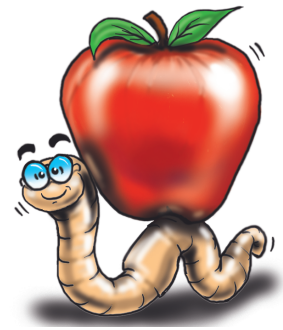
$$\begin{array}{ccccccc} \_ & + & \_ & = & \_ & \_ & + & \_ & = & \_ \\ \_ & - & \_ & = & \_ & \_ & - & \_ & = & \_ \end{array}$$

▲ Each part of a mathematics operation has a name.

1.8 Find the sum and the difference.

$$\begin{array}{r} 252 \text{ addend} \\ + 362 \text{ addend} \\ \hline \text{sum} \end{array}$$

$$\begin{array}{r} 485 \text{ minuend} \\ - 290 \text{ subtrahend} \\ \hline \text{difference} \end{array}$$



■ When we add and subtract, we may need to carry or borrow.

1.9 Add or subtract.

a. 
$$\begin{array}{r} 63 \\ 47 \\ + 95 \\ \hline \end{array}$$

$$\begin{array}{r} 358 \\ 296 \\ + 307 \\ \hline \end{array}$$

$$\begin{array}{r} 645 \\ 237 \\ + 865 \\ \hline \end{array}$$

$$\begin{array}{r} 132 \\ 306 \\ + 941 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 7,486 \\ + 3,629 \\ \hline \end{array}$$

$$\begin{array}{r} 45,327 \\ + 58,649 \\ \hline \end{array}$$

$$\begin{array}{r} 963 \\ - 285 \\ \hline \end{array}$$

$$\begin{array}{r} 6,362 \\ - 4,208 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 9,003 \\ - 2,059 \\ \hline \end{array}$$

$$\begin{array}{r} 6,200 \\ - 4,318 \\ \hline \end{array}$$

$$\begin{array}{r} 54,638 \\ - 29,386 \\ \hline \end{array}$$

$$\begin{array}{r} 87,000 \\ - 39,054 \\ \hline \end{array}$$

▲ Digits have a value because of their place in a number.

■ We write how many. We write the value.

millions	thousands			units									
ones	hundreds	tens	ones	hundreds	tens	ones							
4,632,954 =	4	+	6	+	3	+	2	+	9	+	5	+	4
=	4,000,000	+	600,000	+	30,000	+	2,000	+	900	+	50	+	4

1.10 Write how many. Write the value.

a.  $5,430,781 =$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  
 $=$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_

b.  $9,080,542 =$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  
 $=$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_  $+$  \_\_\_\_\_

1.11 Write the value of 8 in each number.

563,842	1,687	38,015	8,942,336	983,542	5,836,291
_____	_____	_____	_____	_____	_____

1.12 Write a number that has a ...

3 in tens' place, 4 in hundreds' place,  
 5 in thousands' place, and 7 in ones' place. \_\_\_\_\_

9 in ten thousands' place, 6 in ones' place, 5 in thousands'  
 place, 3 in hundreds' place, and 2 in tens' place. \_\_\_\_\_

7 in millions' place, 2 in hundreds' place, 0 in thousands'  
 place, 5 in hundred thousands' place, 4 in ones' place,  
 8 in ten thousands' place, and 6 in tens' place. \_\_\_\_\_

1.13 Arrange these numbers in number order.

3,654,382	3,543,328	3,564,382	3,645,882	3,645,282
_____	_____	_____	_____	_____

1.14 Add 9 to each number.

8 _____	6 _____	4 _____	7 _____	5 _____	3 _____
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