

Our number system is a place-value system. This means that each place in a number is assigned a value. The value of each place in the base-ten system we use is ten times the value of the place to its right.

THOUSANDS			ONES		
hundred thousands	ten thousands	thousands	hundreds	tens	ones
100,000 (10,000 × 10)	10,000 (1,000 × 10)	1,000 (100 × 10)	100 (10 × 10)	10 (1 × 10)	1

Notice that the places are in groups of three. Each group is called a period. Periods are separated by commas.

MILLIONS			THOUSANDS			ONES		
hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
7	4	5	3	0	9	2	8	1

The number in the place-value chart above can be written different ways.

- The **standard form** is 745,309,281.
- The **expanded form** is
 $700,000,000 + 40,000,000 + 5,000,000 + 300,000 + 9,000 + 200 + 80 + 1$.
- The **short word form** is 745 million, 309 thousand, 281.
- The **word form** is seven hundred forty-five million, three hundred nine thousand, two hundred eighty-one.

Place Value Through Hundred Thousands

Write the number in the place-value chart in four ways.

Thousands				Ones		
hundred thousands	ten thousands	one thousands		hundreds	tens	ones
4	3	9	,	1	5	8
Short Word Form		Word Form				
439 thousand, 158		four hundred thirty-nine thousand, one hundred fifty-eight				
Standard Form		Expanded Form				
439,158		$400,000 + 30,000 + 9,000 + 100 + 50 + 8$				

Write each number in three other ways. You can use a place-value chart to help you.

1. 125,312

2. $200,000 + 50,000 + 9,000 + 200 + 30 + 7$

3. 317 thousand, 209

Place Value Through Hundred Thousands

Write each number in short word form.

1. $200,000 + 30,000 + 400 + 50 + 1$ _____

Write each number in standard form.

2. six hundred thirteen thousand, five hundred twenty-one _____

Write each number in expanded form.

3. 417,058 _____

Write each number in word form.

4. 137 thousand, 215 _____

Write the value of the underlined digit.

5. 528 6. 7,854 7. 236,064 8. 32,888
- _____

Algebra • Equations Find each missing number.

9. $5,000 + 200 + 60 + \blacksquare = 5,267$ 10. $6,000 + 700 + \blacksquare = 6,720$

Rewrite the number 54,722 to show each change.

11. Increase the number by 10,000. 12. Decrease the number by 100.
- _____

Test Prep

13. What form is used to write the number in the statement below?

About 135 thousand people live in my hometown.

- A standard C expanded
B short word D word

14. What is the value of the digit 5 in 356,017? Explain how you found your answer.

Place Value Through Hundred Thousands

Write each number in three other ways.

328 thousand, 514
Word form: three hundred twenty-eight thousand, five hundred fourteen
Expanded form: $300,000 + 20,000 + 8,000 + 500 + 10 + 4$
Standard form: 328,514

1. 246,718

2. $300,000 + 40,000 + 2,000 + 100 + 50 + 9$

Write the value of the underlined digit.

3. 76,982 _____

4. 66,424 _____

5. 925,733 _____

Algebra • Equations Find each missing number.

6. $7,000 + \blacksquare + 40 + 5 = 7,845$

7. $\blacksquare + 8,000 + 900 + 70 + 6 = 18,976$

8. $200,000 + 40,000 + 5,000 + 700 + \blacksquare + 3 = 245,783$

Problem Solving

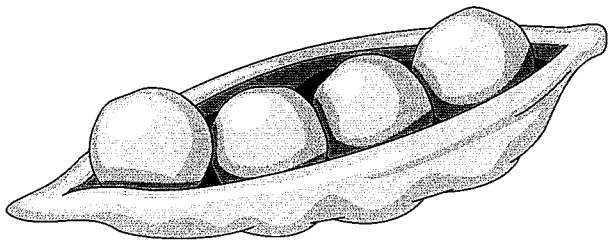
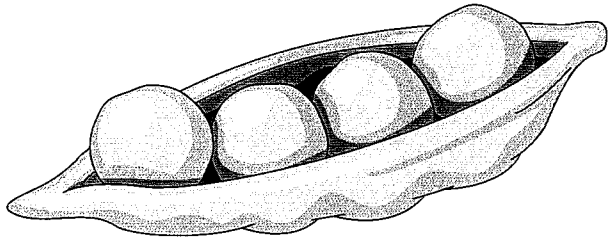
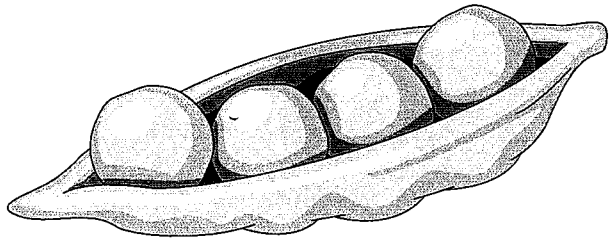
9. What is the value of the hundred thousands digit in the number 178,632?

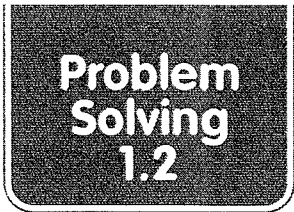
Peas in a Pod

Read the numbers on the left side of the page. The numbers are written in standard form, expanded form, short word form, and word form. In each pea pod, write the letters of four equal numbers.

Not every letter will be used.

- A. 8,687
- B. $800,000 + 60,000 + 800 + 70$
- C. 80 thousand, 687
- D. eight hundred sixty thousand, eight hundred seventy
- E. 86 thousand, 870
- F. 80,687
- G. eight thousand, six hundred eighty-seven
- H. 80 thousand, 870
- I. 86,870
- J. 860,870
- K. $8,000 + 600 + 80 + 7$
- L. eighty thousand, six hundred eighty-seven
- M. 8 thousand, 687
- N. 860 thousand, 870
- O. $80,000 + 600 + 80 + 7$





Place Value Through Hundred Thousands

Use the table to answer each question.

1. What is the area of California? Write this number in word form.

Area of States (square miles)	
State	Area
Alaska	587,878
Arizona	114,007
California	158,648
Colorado	104,100
Montana	147,047
Nevada	110,567
New Mexico	121,599
Texas	266,874

2. Which state has an area that is about one hundred four thousand square miles?

3. Write the area of Alaska in expanded form and short word form.

4. **Predict** The area of Florida is about 100,000 square miles less than the area of California. What is the approximate area of Florida?

5. **Reasoning** Which state on the table has the greatest area? Can you tell by looking at the first digit of each number? Explain your reasoning.
