Chapter 1

Whole Numbers

Practice 1   Numbers to 10,000,000

Count on or back by *ten thousands* or *hundred thousands*. Then fill in the blanks.

1.   40,000   50,000   60,000   _____   _____

2.   900,000   800,000   700,000   _____   _____

Complete the table. Then write the number in standard form and in word form.

3.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
⦾⦾ ⦾⦾	⦾⦾	⦾⦾ ⦾⦾⦾	⦾⦾⦾	⦾	⦾⦾⦾ ⦾⦾⦾

	Standard Form	Word Form
4 hundred thousands	400,000	four hundred thousand
☐ ten thousands		
☐ thousands		
☐ hundreds		
☐ ten		
☐ ones		

Number in standard form: _____

Number in word form: _____

Write each number in standard form.

4.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
○○	○○○	○○○ ○○○ ○○○	○○○ ○○○	○○ ○○○	○○○

The number is _____.

5.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
○○ ○○○ ○○○	○○○	○○ ○○○	○ ○○○ ○○○	○○	

The number is _____.

6. eight hundred sixteen thousand, nine hundred forty-three _____

> First, read the thousands period: eight hundred sixteen thousand — 816,000
> Then, read the remaining period: nine hundred forty-three — 943

7. six hundred five thousand, five hundred _____

8. one hundred three thousand, thirty-one _____

9. eight hundred seventy thousand, three _____

10. three hundred thousand, twelve _____

Fill in the headings. Write *Tens*, *Hundreds*, *Ten Thousands*, or *Hundred Thousands*. Then write each number in word form.

11.

		Thousands			Ones
○		○○ ○○○	○○○	○○○ ○○○	○○

The number is _____

_____ .

12.

		Thousands			Ones
○○ ○○○	○○○ ○○○			○○	○

The number is _____

_____ .

Write each number in word form.

> 65,000 — sixty-five thousand
> 142 — one hundred forty-two

13. 65,142 _____

_____

14. 368,400 _____

_____

Complete to express each number in word form.

15.	802,101	eight hundred two thousand, one hundred _____
16.	324,306	three hundred twenty-four _____, three hundred six
17.	150,260	one hundred fifty thousand, _____ hundred sixty
18.	999,198	nine hundred _____ thousand, one hundred _____

Use the table showing the populations of some cities to answer the questions.

City	Population
Jacksonville, Florida	773,781
Hyde Park, New York	9,523
Portland, Oregon	538,544
Pittsburgh, Pennsylvania	312,819
Lexington, Massachusetts	30,355
Newport, Rhode Island	26,136

19. Write the population of Pittsburgh in word form.

_____

_____

**20.** Which city has the least population? What is its population?

_____

_____
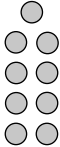
Practice 2   Numbers to 10,000,000

Complete the table. Then write the number in standard form and in word form.

1.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
●●●●●●●●●●	●	●●●●●	●●●●●●	●●●	●●●●	●●

	Standard Form	Word Form
☐ millions		
☐ hundred thousand		
☐ ten thousands		
☐ thousands		
☐ hundreds		
☐ tens		
☐ ones		

Number in standard form: _____

Number in word form: _____

_____

Write the number in standard form and in word form.

2.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
○○○	○○	○○○○				

Number in standard form: _____

Number in word form: _____

Write each number in standard form.

3. two million, one hundred fifty-six thousand, four   _____

4. five million, two hundred thirty-eight thousand   _____

5. seven million, one hundred fifty thousand   _____

6. six million, sixty thousand, fifty   _____

7. three million, three   _____

Write each number in word form.

8. 5,050,000 _____

9. 8,147,600 _____

_____

10. 7,230,014 _____

_____

11. 5,192,622 _____

_____

12. 9,009,009 _____

Practice 3 Place Value

Complete. Use the place-value chart.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
○○○	○○ ○○	○○ ○○○	○○		○
3	4	5	2	0	1

In 345,201:

1. a. the digit 3 stands for _____.   **b.** the value of the digit 3 is _____.

2. a. the digit 4 stands for _____.   **b.** the value of the digit 4 is _____.

3. a. the digit 5 stands for _____.   **b.** the value of the digit 5 is _____.

Write the value of each digit in the correct box.

4.

2 5 6, 8 6 1

Complete.

In 346,812:

5. the digit 3 stands for _____.

6. the digit 6 stands for _____.

Write the value of the digit 2 in each number.

7. 3**2**9,051 _____   **8.** 903,5**2**1 _____

9. 71**2**,635 _____   **10.** **2**58,169 _____

Complete.

11. In 320,187, the digit _____ is in the thousands place.

12. In 835,129, the digit 8 is in the _____ place.

13. In 348,792, the digit 4 is in the _____ place.

Complete to express each number in expanded form.

14. 153,420 = 100,000 + _____ + 3,000 + 400 + 20

15. 760,300 = _____ + 60,000 + 300

16. 700,000 + 8,000 + 500 + 4 = _____

17. 200,000 + 2,000 + 10 = _____

Complete. Use the place-value chart.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
1	5	0	8	3	6	9

In 1,508,369:

18. **a.** the digit 1 stands for _____.

b. the value of the digit 1 is _____.

19. **a.** the digit 8 stands for _____.

b. the value of the digit 8 is _____.

20. the digit 0 is in the _____ place.

Write the value of each digit in the correct box.

21.

7, 5 1 9, 4 5 6

Complete.

22. In 5,420,000, the digit 5 is in the _____ place.

23. In 1,077,215, the digit in the hundred thousands place is _____.

24. In 9,400,210, the digit 9 stands for _____.

Complete to express each number in expanded form.

25. 4,130,000 = _____ + 100,000 + 30,000

26. 6,123,750 = 6,000,000 + 100,000 + 20,000 + 3,000 + 700 + _____

27. 7,550,100 = 7,000,000 + _____ + 50,000 + 100

28. 5,000,000 + 200,000 + 7,000 + 70 = _____

29. 3,000,000 + 20,000 + 9,000 + 100 + 5 = _____

Read the clues to find the number.

It is a 7-digit number.
The value of the digit 7 is 700.
The greatest digit is in the millions place.
The digit 1 is next to the digit in the millions place.
The value of the digit 8 is 8 tens.
The value of the digit 3 is 3 ones.
The digit 5 is in the thousands place.
The digit 6 stands for 60,000.

30. The number is _____.

Practice 4   Comparing Numbers to 10,000,000

Complete the place-value chart. Then use it to compare the numbers.

1.   Which is greater, 197,210 or 225,302?

> Compare the values of the digits, working from left to right.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

_____ hundred thousands is greater than _____ hundred thousand.

So, _____ is greater than _____.

Fill each ◯ with > or <.

2.   128,758 ◯ 74,906   3.   523,719 ◯ 523,689

4.   89,000 ◯ 712,758   5.   635,002 ◯ 635,100

Circle the least number and cross out the greatest number.

6.   375,061   172,503   127,203   157,203   371,560   371,605

Order the numbers from least to greatest.

7.   739,615   795,316   315,679   615,379

_____

8.   245,385   805,342   97,632   300,596

_____

Compare the numbers. Use the place-value chart to help you.

9.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
8	0	7	9	7	2	0
6	9	9	0	3	9	5

_____ millions is less than _____ millions.

_____ is less than _____.

10.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
1	0	8	3	9	5	2
5	0	9	6	3	5	7

_____ is greater than _____.

11.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
6	4	1	2	5	8	6
6	4	3	8	6	7	1

_____ is greater than _____.

Fill each ◯ with > or <.

12. 4,015,280 ◯ 2,845,000   **13.** 999,098 ◯ 1,000,000

14. 2,007,625 ◯ 2,107,625   **15.** 7,405,319 ◯ 905,407

Order the numbers from greatest to least.

16. 2,432,000   480,000   2,720,000   3,190,000

_____

17. 513,900   3,150,000   913,000   2,020,000

_____

Find the missing numbers.

18. 738,561   938,561   1,138,561   ...

a. 938,561 is _____ more than 738,561.

b. 1,138,561 is _____ more than 938,561.

c. _____ more than 1,138,561 is _____.

d. The next number in the pattern is _____.

19. 4,655,230   4,555,230   4,455,230   ...

a. 4,555,230 is _____ less than 4,655,230.

b. 4,455,230 is _____ less than 4,555,230.

c. _____ less than 4,455,230 is _____.

d. The next number in the pattern is _____.

Find the rule. Then complete the number patterns.

20. 230,180   231,180   232,180   _____   _____

Rule: _____

21. 850,400   845,400   840,400   _____   _____

Rule: _____

22. 2,650,719   3,650,719   4,650,719   _____   _____

Rule: _____

23. 6,298,436   5,198,436   4,098,436   _____   _____

Rule: _____

Complete.

24. 5,083,000 = 5,000,000 + _____ + 3,000   Ⓜ

25. 5,000,000 + 600,000 + 2,000 = _____   Ⓣ

26. Which is greater, 509,900 or 562,000? _____   Ⓢ

27. Which is less, 1,020,000 or 1,002,000? _____   Ⓐ

28. The value of the digit 1 in 7,120,000 is _____.   Ⓟ

What goes around the world but remains in one corner?
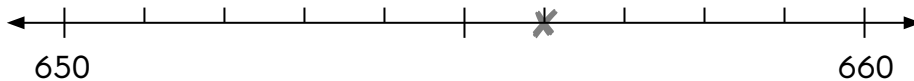Write the letters that match the answers below to find out.

_____ _____ _____ _____ _____

562,000   5,602,000   1,002,000   80,000   100,000

Practice 5   Rounding and Estimating

**Mark an ✗ to show where each decimal is located on the number line.
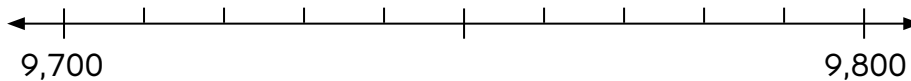Then round each number.**

Example

656

650   660
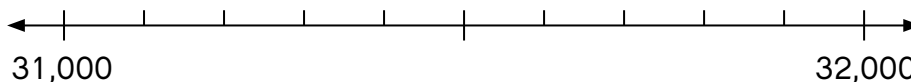
656 rounded to the nearest ten is _____*660*_____.

1.

9,709

9,700   9,800

9,709 rounded to the nearest hundred is _____.

2.

31,600

31,000   32,000

31,600 rounded to the nearest thousand is _____.

Round each number to the nearest thousand.

3.   5,637 _____   **4.**   9,541 _____

5.   1,399 _____   **6.**   72,245 _____

7.   473,075 _____   **8.**   69,547 _____
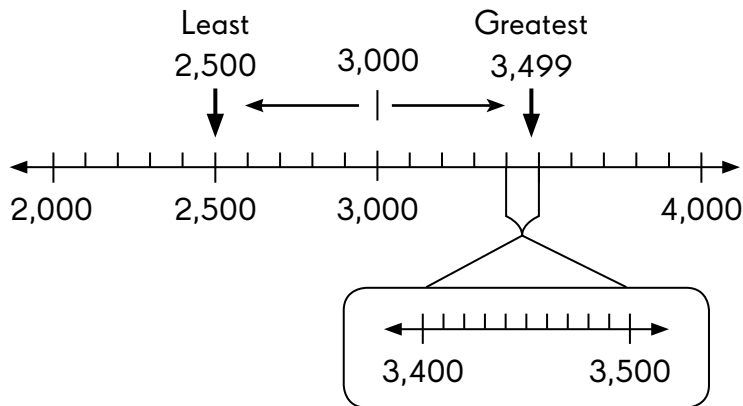
9.   20,100 _____   **10.**   756,715 _____

Answer each question. Use the number line to help you.

Example
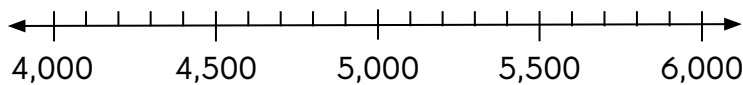
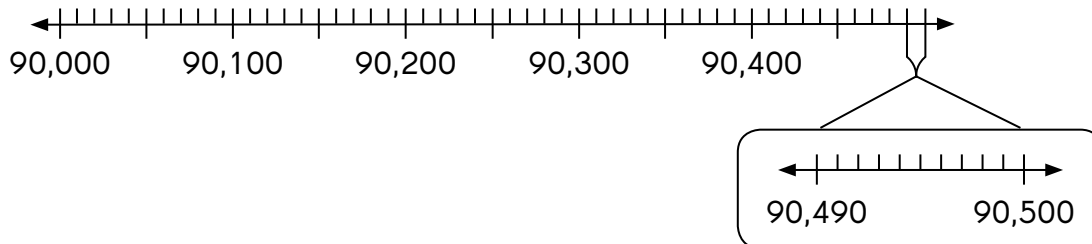Rounding to the nearest thousand, what is the least and the greatest number that rounds to 3,000?

Least 2,500   3,000   Greatest 3,499

2,000   2,500   3,000   4,000

3,400   3,500

Least number: __2,500__

Greatest number: __3,499__

---

11.   Rounding to the nearest thousand, what is

a.   the least number that rounds to 5,000?

4,000   4,500   5,000   5,500   6,000

_____

b.   the greatest number that rounds to 90,000?

90,000   90,100   90,200   90,300   90,400

90,490   90,500

_____

Round each number to the nearest thousand. Then estimate the sum.

Example

9,286 + 5,703

9,286 rounds to 9,000.
5,703 rounds to 6,000.
9,000 + 6,000 = 15,000

12.   6,789 + 4,200

13.   7,264 + 7,153

14.   4,885 + 6,075

15.   3,105 + 9,940

16.   7,083 + 2,607

Round each number to the nearest thousand. Then estimate the difference.

Example

8,156 − 6,109

8,156 rounds to 8,000.
6,109 rounds to 6,000.
8,000 − 6,000 = 2,000

17.   4,924 − 4,127

18.   7,105 − 3,940

19.   4,885 − 1,075

20.   3,522 − 2,815

21.   6,480 − 1,397

Use front-end estimation with adjustment to estimate each sum.

Example

1,963 + 3,290 + 7,837

1,000 + 3,000 + 7,000
= 11,000

900 + 200 + 800
= 1,900

To the nearest thousand:
1,900 → 2,000

11,000 + 2,000 = 13,000

22.   2,541 + 6,061 + 1,681

23.   7,823 + 6,848 + 3,310

24.   4,197 + 8,936 + 2,226

Use front-end estimation with adjustment to estimate each difference.

Example

$2,943 - 1,272$

$2,000 - 1,000$
$= 1,000$

$900 - 200 = 700$

To the nearest thousand:
$700 \rightarrow 1,000$

$1,000 + 1,000 = 2,000$

25. $6,770 - 3,081$

26. $8,764 - 3,589$

27. $7,802 - 4,396$

Use front-end estimation with adjustment to estimate each difference.

Example

7,594 − 2,831

7,000 – 2,000 = 5,000

800 – 500 = 300

To the nearest thousand:
300 → 0

5,000 – 0 = 5,000

28.   5,780 − 3,962

29.   9,119 − 4,852

30.   8,254 − 4,836

Estimate each product.

Example

4,512 × 2

4,512 rounds to 5,000.
5,000 × 2 = 10,000

31. 3,765 × 7

32. 2,521 × 5

33. 5,108 × 6

34. 8,497 × 9

35. 6,060 × 3

Estimate each quotient.

Example

2,786 ÷ 5

2,786 rounds to 3,000.
3,000 ÷ 5 = 600

Look for compatible numbers.

2,786 ÷ 5 → 2,500 ÷ 5

2,786 ÷ 5 → 3,000 ÷ 5

Which number is nearer to 2,786?

36. 6,509 ÷ 7

37. 5,512 ÷ 6

38. 2,785 ÷ 3

39. 6,287 ÷ 8

40. 2,963 ÷ 9

Math Journal
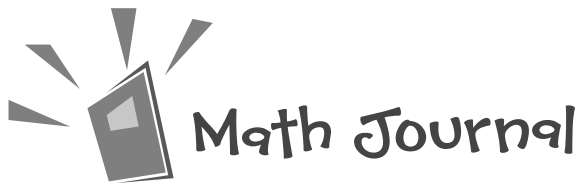
1. Kim and Dominic found the sum of 8,642 and 9,328.

   | Kim's answer is 17,970. | | Dominic's answer is 1,890. |

   One of their answers is incorrect.
   Show how you could use estimation to check which answer is reasonable.

2. Samantha found these quotients.

a. 7,986 ÷ 8 = 998 R 2 **b.** 2,659 ÷ 3 = 264 R 3

Show how you could check whether the quotients are reasonable.
State in each case whether the quotient is reasonable.
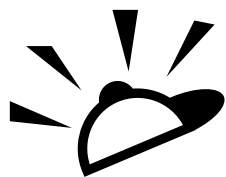
3. Lisa was asked to round

a. 763 to the nearest hundred.

b. 3,730 to the nearest thousand.

Lisa rounded 763 to 700 and 3,730 to 3,000. What mistakes did she make?
What should the correct answer in each case have been?

Put On Your Thinking Cap!

Challenging Practice

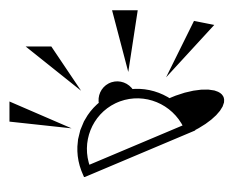**Arrange the digits to form three 6-digit numbers that will round to 756,000 when rounded to the nearest thousand.**

2	5	5	6	7	8

Put On Your Thinking Cap!

Problem Solving

1. What number can you subtract from 3,200 such that their difference is a 4-digit number that has:
the digit 2 in the thousands place,
the digit 3 in the hundreds place and
zeros in the tens and ones place?

2. A 3-digit number when divided by 5 has an even quotient. When it is divided by 3, it also has an even quotient.

    a. What is the digit in the ones place?

    b. What can the number be?