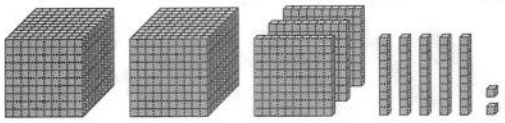
Name _____

Numbers in the Thousands

R 1-1

Here are some different ways to represent 2,352.

Place-value blocks:



Expanded form:

2,000 + 300 + 50 + 2

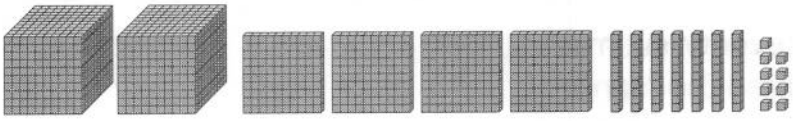
2 thousands + 3 hundreds + 5 tens + 2 ones

(2 × 1,000) + (3 × 100) + (5 × 10) + (2 × 1)

Standard form: 2,352 **Word form:** two thousand, three hundred fifty-two

Each digit in 2,352 has a different *place* and *value.* The digit 3 is in the hundreds place and has a value of 300.

Write each number in standard form.

1.  _____

2. 7 ten thousands + 5 thousands + 8 hundreds + 1 ten + 0 ones _____

Write the word form and tell the value of the underlined digit for each number.

3. 4,<u>6</u>32 _____

_____

4. <u>7</u>,129 _____

_____

5. 13,57<u>2</u> _____

_____

6. Number Sense Write a six-digit number with a 5 in the ten thousands place and a 2 in the ones place. _____

Name _____

Understanding Greater Numbers

R 1-2

Here are different ways to represent 555,612,300.

Place-value chart:

Billions Period			Millions Period			Thousands Period			Ones Period		
hundred billions	ten billions	billions	hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
			5	5	5,	6	1	2,	3	0	0

Expanded form: 555,612,300 = 500,000,000 + 50,000,000 + 5,000,000 + 600,000 + 10,000 + 2,000 + 300

Word form: 555,612,300 = five hundred fifty-five million, six hundred twelve thousand, three hundred

The 6 is in the hundred thousands place. Its value is 600,000.

1. Write nine hundred seventy-six million, four hundred thirty-three thousand, one hundred eleven in standard form. _____

2. Write 80,000,000 + 700,000 + 30,000 + 200 + 90 + 7 in standard form. _____

3. Write the word form and tell the value of the underlined digit in 33<u>7</u>,123,421.

_____

_____

_____

_____

4. **Number Sense** In the number 213,954,670, which digit has the second greatest value? What is its value? _____

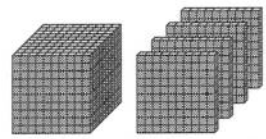
Name _____

Place-Value Patterns

R 1-3

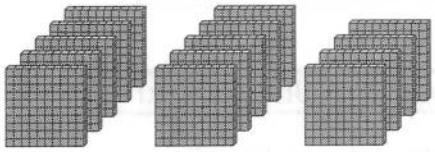
Here are two different ways to show 1,400.

One Way:



one thousand, four hundreds

Another Way:



fourteen hundreds

Here are two different ways to write 660.
660 six hundred sixty or **66**0 sixty-six tens

Here are two different ways to write 40,000.
40,000 forty thousand or **40,0**00 four hundred hundreds

Name each number in two different ways.

1. 700 _____

2. 1,700 _____

_____

3. Number Sense How many tens are in 6,430? _____

The cafeteria has 900 food trays. How many stacks of trays would there be if the trays were stacked in

4. hundreds? _____ **5.** tens? _____

6. Christopher has a collection of 1,742 pennies. If he gets 300 more, how many total pennies will he have? _____

Look for a pattern. Find the next three numbers.

7. 2,950 3,050 3,150 _____ _____ _____

8. 1,211 1,221 1,231 _____ _____ _____

Name _____

PROBLEM-SOLVING SKILL **R 1-4**

Read and Understand

Seven Days There are seven days in a week. Each day has a certain number of letters. Which day of the week has the greatest number of letters?

Read and Understand

Step 1: What do you know?

- Tell the problem in your own words. — There are seven days in a week, each with a certain number of letters.
- Identify key facts and details. — The days of the week are: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday.

Step 2: What are you trying to find?

- Tell what the question is asking. — We want to know which day of the week has the greatest number of letters.
- Show the main idea.

Sunday	6	Thursday	8
Monday	6	Friday	6
Tuesday	7	Saturday	8
Wednesday	9		

Answer: Wednesday has the greatest number of letters.

Team Members Steve, Caroline, Heather, Brittany, Brian, Nick, Robert, Jennifer, and Susan are the players on a softball team. Are there more boys or girls on the team?

1. Identify key facts and details.

_____

_____

_____

2. Tell what the question is asking.

_____

3. Solve the problem. Write your answer in a complete sentence.

_____

Name _____

Comparing and Ordering Numbers

R 1-5

You can use place value to compare two numbers. First line up the places of the numbers. Begin at the left, find the first place where the digits are different, and compare:

33,**4**14 5 hundreds > 4 hundreds,
⇓⇓ ⇓
33,**5**15 so 33,414 < 33,515.

To order numbers from greatest to least, write the numbers, lining up places. Begin at the left and find the greatest digit. If necessary, continue comparing the other digits:

42,078	Continue comparing.	Write from greatest to least.
37,544	3**7**,554	42,078
24,532	3**9**,222	39,222
39,222	39,222 > 37,544	37,544
		24,532

Compare. Write > or < for each ◯.

1. 3,211 ◯ 4,221 **2.** 35,746 ◯ 35,645 **3.** 355,462 ◯ 535,845

4. Order the numbers from greatest to least.

62,500 62,721 63,001 61,435

_____; _____; _____; _____

5. Number Sense Write 3 numbers that are greater than 12,000 but less than 13,000.

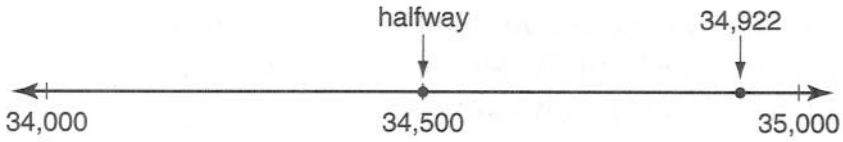
_____

_____

Name _____

Rounding Numbers

R 1-6



Round up to 35,000.

You can round using a number line or place value. On a number line, tell if 34,922 is closer to 34,000 or 35,000.

Using place value, find the rounding place and look at the digit to the right of it. If that digit is 5 or more, round up. If it is less than 5, round down.

For example, to round 34,922 to the nearest thousand, look at the number to the right of the thousands place. It is a 9. So, 34,922 rounds up to 35,000.

Round each number to the nearest thousand and ten thousand.

1. 13,212 _____

2. 35,645 _____

3. 55,462 _____

4. 25,845 _____

5. 367,142 _____

6. Number Sense Write three numbers that round to 1,000 when rounded to the nearest thousand.

_____

7. Round the population of Illinois to the nearest hundred thousand.

_____

Welcome to
ILLINOIS
Population 12,419,000

Name _____

The Size of Numbers

R 1-7

Small groups of numbers make up larger numbers.
You know that there are 10 dimes in $1.00.

=

How many dimes are there in $3.00? You can skip count to find out. 10, 20, 30.

How many dimes are in $10.00? 100

Each dollar is equal to 100 pennies. How many pennies are in $10.00? 1,000

A box of chalk contains 10 pieces. How many pieces of chalk are in

1. 4 boxes? _____
2. 12 boxes? _____
3. 40 boxes? _____
4. **Number Sense** How many boxes of chalk would you buy if you needed 500 pieces of chalk? _____

A jar holds 10,000 dimes.

5. How many $1 bills is this amount equal to?

_____

6. How many $100 bills is this amount equal to?

_____

7. How many $1,000 bills is this amount equal to?

_____

Name _____

PROBLEM-SOLVING SKILL **R 1-8**

Plan and Solve

Plenty of Words Each line of print in a children's book contains about 10 words. Each paragraph contains about 10 lines. Each page contains about 3 paragraphs. About how many words are on 10 pages of a book?

Here are the steps to follow when you plan and solve a problem.

Step 1: Choose a Strategy

- **Show what you know:** Draw a picture, make an organized list, make a table or a graph, act it out or use objects.
- **Look for a Pattern**
- **Try, Check, and Revise**
- **Write a Number Sentence**
- **Use Logical Reasoning**
- **Solve a Simpler Problem**
- **Work Backward**

Step 2: Stuck?
Don't give up. Try these.

- Reread the problem.
- Tell the problem in your own words.
- Tell what you know.
- Identify key facts and details.
- Try a different strategy.
- Retrace your steps.

Step 3: Answer the question in the problem.
What strategy can be used to solve the Plenty of Words problem?

A table can organize the information and make the problem easier.

Number of Words

1 line	10
1 paragraph	100
1 page	300
10 pages	3,000

The answer to the problem: Ten pages are equal to about 3,000 words.

Newspapers Sam usually delivers 22 newspapers each day. One day, 5 of his customers put a hold on the paper because they were going on vacation that week. Sam's boss told him that 2 new customers wanted delivery that week. How many papers did Sam deliver on the first day of that week?

1. What strategy might work to solve this problem?

_____

2. Give the answer to the problem in a complete sentence.

_____

_____

Name _____

Using Money to Understand Decimals

R 1-9

We can use money to understand decimals. For example, a dime is one-tenth of a dollar, or 0.1. It takes 10 dimes to equal a dollar. A penny is one one-hundredth of a dollar, or 0.01, so it takes 100 pennies to equal one dollar.

$0.01	$0.05	$0.10	$0.25	$0.50
0.01	0.05	0.1	0.25	0.5

The decimal point is read by saying "and." So, $1.99 is read as "one dollar *and* ninety-nine cents."

1. $3.52 = _____ dollars + _____ dimes + _____ pennies

2. $1.87 = _____ dollars + _____ dimes + _____ pennies

3. Number Sense Write nine and thirty-six hundredths with a decimal point. _____

How could you use only dollars, dimes, and pennies to buy

4. the baseball?

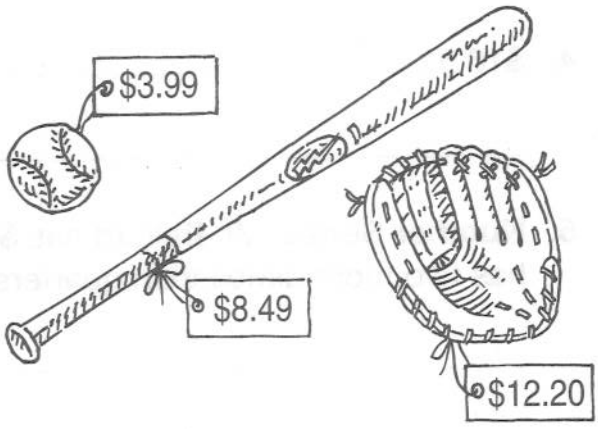
_____

_____

5. the baseball bat?

_____

_____

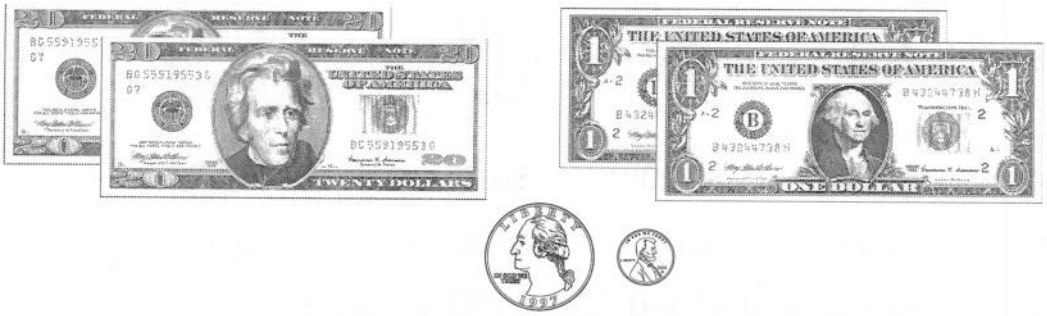


Name _____

Counting Money

R 1-10

To make an amount of money with the fewest number of bills and coins, start with the largest bill that is less than the amount you are making. For example, to make $42.26, start with the largest bill that is less than $42.26. Then keep using the largest bills or coins possible. So, we need two $20 bills, two $1 bills, 1 quarter, and 1 penny to make $42.26.



Count the money. Write each amount with a dollar sign and decimal point.

1. 3 dollars, 4 dimes, 6 pennies _____

2. 3 five-dollar bills, 8 dimes, 2 pennies _____

Tell how to make each money amount with the fewest bills and coins.

3. $5.22 _____

_____

4. $16.51 _____

_____

5. Number Sense Mr. Belford has $0.59 in a tray on his desk. He has two more dimes than quarters. What coins does he have?

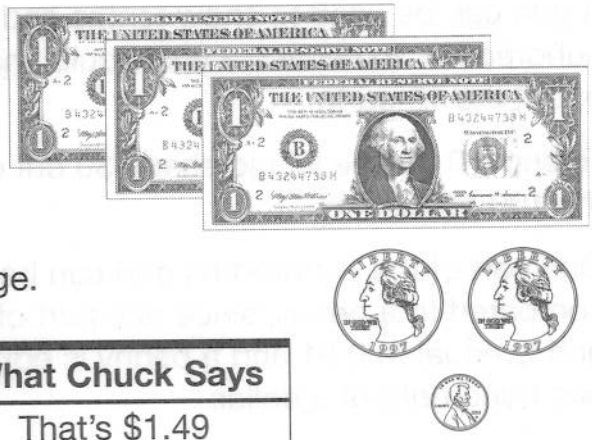
_____

Name _____

Making Change

R 1-11

An easy way to make change is to count up from the cost. For example, Chuck is making change at the convenience store. Tara buys a drink for $1.49 and pays with a $5 bill. How much change should Chuck give Tara? The chart shows how Chuck makes change.



What Chuck Does	What Chuck Says
He starts with cost of the drink.	That's $1.49
He gives one penny.	$1.50
He gives two quarters.	$1.75, $2.00
He gives three $1 bills.	$5.00
Total change given	$3.51

Chuck gives Tara $3.51 in change.

Tell how much change you would give from a $5 bill for each purchase. Give the amount with a dollar sign and a decimal point and list the bills and coins you could use.

1. $1.50 _____

_____

2. $2.73 _____

_____

3. Reasoning Suppose you buy an item that costs $5.03. Why might you give the salesperson $10.03?

_____

_____

_____

Name _____

More About Decimals

R 1-12

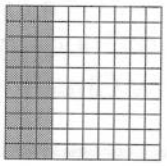
A grid can be used to show tenths and hundredths. To show 0.3 you would shade 3 out of the 10 parts.

To show 0.30 you would shade 30 out of the 100 parts.

One part of the hundredths grid can be compared to a penny, since one part of the grid is equal to 0.01 and a penny is equal to one hundredth of a dollar.

0.3

3 out of 10 parts are shaded.

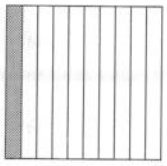


0.30

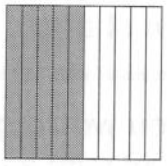
30 out of 100 parts are shaded.

Tenths and hundredths are related. In the above examples, 3 tenths or 30 hundredths of the grids are shaded, or 0.3 and 0.30. These numbers are equal: $0.3 = 0.30$.

Write the word form and decimal for each shaded part.

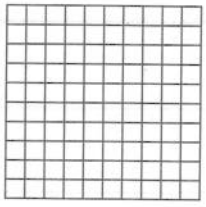
1. 

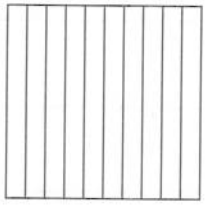
_____

2. 

_____

Shade each grid to show the decimal.

3. 0.57 

4. 0.4 

5. Number Sense Which is greater, 0.04 or 0.4? Explain.

_____

_____

_____

_____

Name _____

PROBLEM-SOLVING SKILL **R 1-13**

Look Back and Check

Total Pins Shalyn bowled five frames, each time knocking down one pin more than the last frame. Shalyn knocked over three pins in the first frame. How many pins did she knock down after bowling all five frames?

Yoshi's Work

Frame	1	2	3	4	5
Pins Down	3	4	5	6	7
Total Pins	3	7	12	18	25

By the end of the fifth frame, Shalyn knocked down 25 pins.

You are not finished with a problem until you look back and check your answer. Here are the steps to follow.

Step 1: Check your answer.
Did Yoshi answer the right question?
Yes, she found the total number of pins Shalyn knocked down by the end of the fifth frame.

Step 2: Check your work.
Yoshi could use the pattern in her table to add numbers in the "total pins" column.

Did Yoshi use the correct operation?
Yoshi used addition to find the total pins knocked down.

Survey The results of a survey taken at Hillcrest School show that 140 students prefer bicycling as their favorite kind of exercise. There were 60 people who said swimming was their favorite. How many more students prefer bicycling to swimming?

Look back and check Yolanda's work on this problem.

Yolanda's Work

$$\begin{array}{r} {}^{1}\cancel{4}{}^{1}0 \\ -\ 60 \\ \hline 80 \end{array}$$

There are 80 more students who prefer bicycling.

1. Did Yolanda answer the right question? Explain.

_____

_____

_____

2. Is her work correct?

_____

Name _____

PROBLEM-SOLVING APPLICATIONS **R 1-14**

Go to the Door

Door County in Wisconsin has many small towns and miles of shoreline along Lake Michigan.

The chart shows the populations of four towns in Door County.

Town	Population
Forestville	1,680
Casco	2,066
New Franken	2,640
Fish Creek	1,200

Order the populations from least to greatest.

So, the order of the populations from least to greatest is

1,200 1,680 2,066 2,640

1. Algoma has a population of 5,387. Sturgeon Bay has a population of 16,149. Use these two populations and the ones in the table above to make a new list of populations from *greatest* to *least*.

_____

2. Write the population of Forestville in expanded form.

_____

Washington Island is near the tip of the Door County peninsula. To get there with a car or a bicycle, people have to take a ferry. Tickets for a one-way ride on the ferry cost $4.00 for adults and $2.00 for children (ages 6 to 11).

3. Jacqui bought an adult ticket and a tourist map. The total for the ticket and the map was $5.45. Jacqui paid with a $10.00 bill. How much change did she receive?

_____