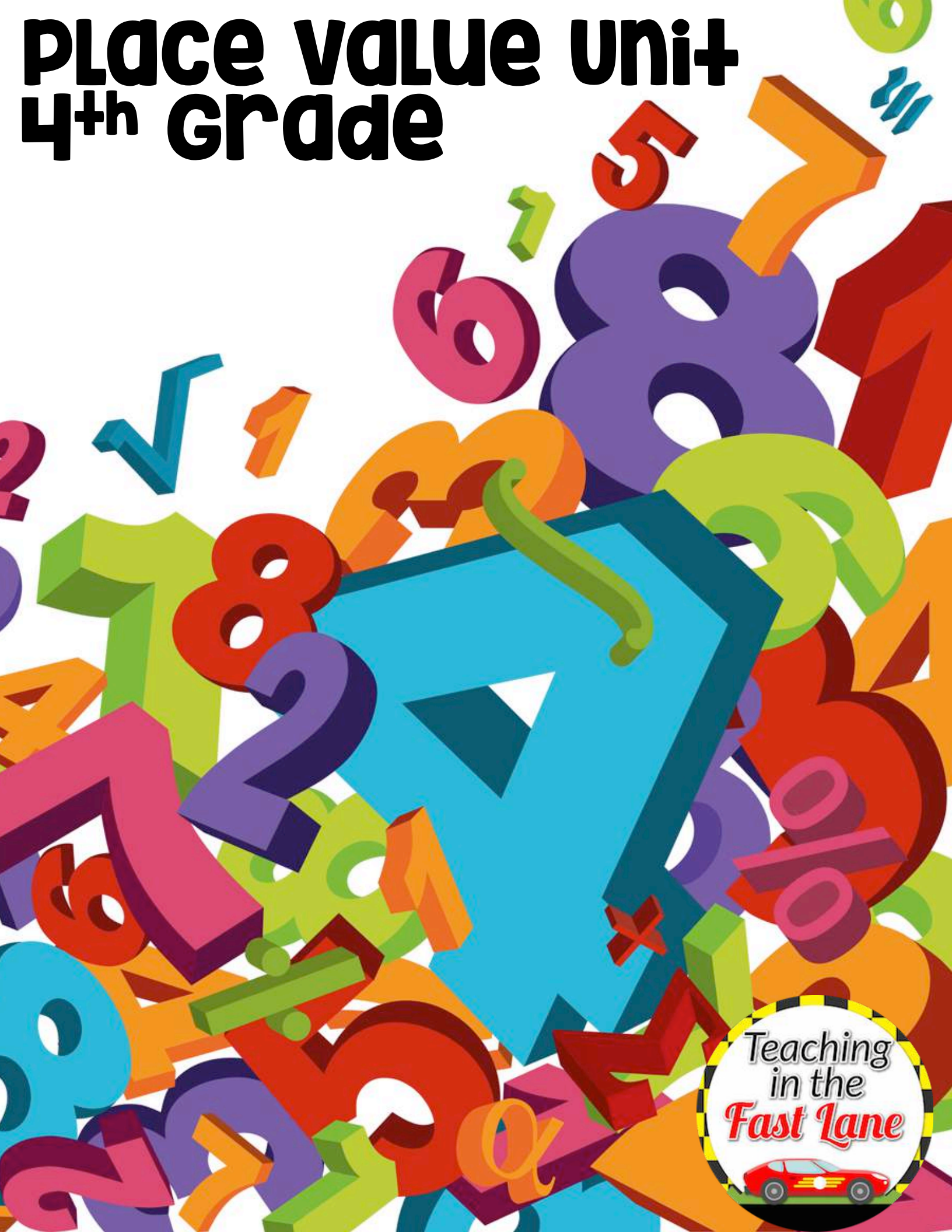
Place Value Unit
4th Grade



Teaching in the Fast Lane

THANK YOU FOR YOUR PURCHASE

DEAR TEACHER,

THIS RESOURCE IS FOR YOUR PERSONAL CLASSROOM USE IN ONE CLASSROOM ONLY. IF YOU WOULD LIKE ADDITIONAL COPIES FOR YOUR TEAMMATES, YOU CAN PURCHASE ADDITIONAL LICENSES FOR A DISCOUNT. TO PURCHASE ADDITIONAL LICENSES, GO TO YOUR "MY PURCHASES" PAGE ON TPT AND SELECT THE NUMBER OF LICENSES YOU WISH TO PURCHASE.

PLEASE VISIT MY TEACHERS PAY TEACHERS STORE: TEACHING IN THE *Fast Lane* FOR MANY DIFFERENT PRODUCTS!

BITLY.COM/SHOPTEACHINGINTHEFASTLANE
WWW.TEACHINGINTHEFASTLANE.COM

Credits:

KG Fonts

GRAPHICS FROM the POND

Creative Clips Digital Clipart Created by Krista Walden

Table of Contents

To The Teacher

Thank you for purchasing this resource! Within it you will find a complete unit for teaching the fourth grade standards for place value including pre-assessment, content vocabulary, daily warm-ups and exit tickets, daily lessons with student activities, and a post assessment.

While this unit is laid our over a ten day time span do not feel that you must rigidly stick to the timeline. As a teacher you know what is best for your students, and should follow your gut, as some classes may require more time to reach understanding of a concept.

To save on ink and decrease prep time, every page of this unit is created in black and white. To create a more colorful unit print or copy on color paper.

Standards

TEKS

4.2A interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left

4.2B represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals

4.2C compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =

4.2D round whole numbers to a given place value through the hundred thousands place

CCSS

NBT.A1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700÷70=10 by applying concepts of place value and division.*

NBT.A2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, +, and < symbols to record the results of comparisons.

NBT.A3 Use place value understanding to round multi-digit whole numbers to any place.

ALL About This Unit

This unit is made up of unique elements that can be used independently or together to provide a complete unit of math instruction.

Content Vocabulary

Vocabulary for this place value unit is included in a few forms.

- Word wall cards make it easy to add your content vocabulary to your word wall
- The word and definition list make a great reference for student math notebooks and teachers alike
    - This list is included completed as well as with blank areas for definitions and examples
- Double-sided word and definition cards are great for review and small group remediation

Pre-Assessment and Student Standard Checklist

To be used an an informal assessment to check students' prior knowledge as well as determine any misconceptions. The data that you gather from this pre-assessment can be recorded on the Student Standards Checklists and used to set student learning goals, form small groups, or partner students based on ability. Checklists fit 11 students per page.

ALL About This Unit

Daily Warm-ups

Ten days of half-page daily warm-ups are provided along with answer keys. Each day has four standards-based questions for students to think through their learning. A student tracking sheet is also included for students to record their own grow and glow areas. To save paper you may choose to project the warm up each day and have students complete their work in math notebooks.

Exit Tickets

Ten days worth of exit tickets and answer keys, with one question each, are included two to a page for easy copying. Each of the questions is based on how that standard is tested, providing a test bridge and exposing students to test style language. This serves to build familiarity with standardized testing without overwhelming students.

Exit tickets can be checked as a class, or by the teacher. A checklist of questions/standards is included to track how students are doing on their exit tickets.

Assessment

An end of unit assessment is included to check for student mastery on the place value standards included. This assessment is meant to be used informally. While students should do their best work, it is best to not place too much importance on the test.

ALL About This Unit

Daily Lessons

Ten daily lessons are included in this unit.
Each lesson includes:

- Guiding question(s)
- Objectives
- List of necessary materials
- Overview of the lesson
- Student activity sheets when applicable
- Suggestions for small group activity

Day 1 Pre-assessment & Introduction To Place Value Chart

Day 2 Naming Numbers

Day 3 Forms of a Number

Day 4 Real World Modeling, Reading, And Writing Numbers

Day 5 Comparing Whole Numbers

Day 6 Comparing Whole Numbers In The Real World

Day 7 Ordering Whole Numbers

Day 8 Rounding Whole Numbers

Day 9 Place Value Project

Day 10 Assessment

content vocabulary

Vocabulary for this place value unit is included in a few forms.

- Word wall cards make it easy to add your content vocabulary to your word wall
- The word and definition list make a great reference for student math notebooks and teachers alike
  - This list is included completed as well as with blank areas for definitions and examples
  - TIP: print/copy definition list at 80% to fit perfectly in math notebooks
- Double-sided word and definition cards are great for review and small group remediation
  - To complete these cards print, fold along the dotted line with the word and definition on the outside, then tape or glue to secure the card.

whole number

Set of natural numbers greater than zero used to count.
Examples: 5, 709, or 1,00,0[illegible]

decimal

Number that represent part of a whole recorded with a decimal point.
Examples: 1.7, 30.09, or 100.25

digit

Any numeral 0-9

standard form

The representation of a number using digits.
Examples: 437 or 0.97

Place Value Vocabulary

Whole Number	Set of natural numbers greater than zero used to count. Examples: 5, 709, or 1,00,019
Decimal	Number that represent part of a whole recorded with a decimal point. Examples: 1.7, 30.09, or 0.25
Digit	Any numeral 0-9
Standard Form	The representation of a number using digits. Examples: 437 or 0.97
Word Form	The representation of a number using words. Examples: four hundred thirty seven or ninety-seven hundredths
Expanded Form	The representation of a number using the sum of its place values. Examples: 400+30+7 or 0.9+0.07
Expanded Notation	The representation of a number as a sum of its place values where each term is shown as the digit's multiple of its place value. Example: (4×100)+(3×10)+(7×1) or 4(100)+3(10)+7
Numeral	A symbol used to represent a number
Order	Arrange from least to greatest or greatest to least based on their value
Compare	Consider the value of two numbers and use a symbol such as <, >, or = to determine which is greater
Period	Three-digit grouping of numbers containing a ones, tens, and hundreds place
Place Value	The value of a digit based on its location in a number
Rounding	Making an estimation to the closest specified value
Value	The amount that a number represents

whole number	Set of natural numbers greater than zero used to count. Examples: 5, 709, or 1,00,019
decimal	Number that represent part of a whole recorded with a decimal point. Examples: 1.7, 30.09, or 100.25
digit	Any numeral 0-9

Place Value Show What You Know

Name _____

1 Write six hundred thousand, forty-four in standard form.

2 What is the value of 9 in 108,924?

3 Write 8[illegible] in word form.

4 How much does the value increase from the hundreds place to the thousands place?

5 Write the expanded notation for 820,391.

6 Order the following numbers from least to greatest:
[illegible],001 22,999 23,100

7 Compare the numbers:
1,[illegible]2,[illegible]01 & [illegible],669,234

8 Write the expanded notation for 18.72.

9 Round to the tens place:
[illegible]76

10 Round to the thousands place:
27,499

Pre-assessment
Student Standards Checklist

Student	1. Standard Form	2. Value Of A Number	3. Word Form	4. Value	5. Expanded Notation	6. Ordering	7. Comparing	8. Expanded Notation	9. Rounding	10. Rounding

Daily Warm-Ups

Ten days of half-page daily warm-ups are provided along with answer keys.

Each day has four standards-based questions for students to think through their learning.

A student tracking sheet is also included for students to record their own grow and glow areas.

To save paper you may choose to project the warm up each day and have students complete their work in math notebooks.

Name _____

Place Value Warm-Up Day 1

Forms of a Number
Write the number 576 in expanded notation.

Value of Position
In the number shown, one number is underlined and another is bold. How is the value of the bold number related to the underlined number?

7,7<u>2</u>3

Comparing & Ordering
Write a comparative statement using the numbers 9,743 and 10,000.

Rounding
Round the tens place.

10,478

Name _____

Place Value Warm-Up Day 1

Forms of a Number
Write the number 576 in expanded notation.

Value of Position
In the number shown, one number is underlined and another is bold. How is the value of the bold number related to the underlined number?

7,7<u>2</u>3

Comparing & Ordering
Write a comparative statement using the numbers 9,743 and 10,000.

Rounding
Round the tens place.

10,478

Daily Warm-Up Answer Key

Place Value Warm-Up Day 1

Name _____

Forms of a Number

Write the number 576 in expanded notation.

(5×100)+(7×10)+(6×1)

Value of Position

In the number shown, one number is underlined and another is bold. How the value of the bold numb[illegible]ted the underlined n[illegible]er?

7,2[illegible]

The b[illegible]d 7 is worth te[illegible]imes more th[illegible]n the [illegible]derlined 7.

Comparing & Ordering

Write a comparative statement using the numbers 9,743 and 10,000.

9,743<10,000

Rounding

Round the te[illegible] place.

[illegible]0,478

[illegible],480

Place Value Warm-Up Day 2

Name _____

Forms of a Numbe[illegible]

Write the number on[illegible]on, th[illegible] hundred six [illegible]ur h[illegible]dred twenty-seve[illegible]and, th[illegible] in standard form.

[illegible]306,4[illegible]7,003

Value of Position

Does the bold number have one-tenth or ten times the value of the underlined number?

4,4<u>2</u>7

Ten times the value.

[illegible]aring & [illegible]rdering

Write [illegible]mpa[illegible]tatement using the numbers [illegible]000,000 and 100,000,000.

1,000,000,000, 100,000,000

Rounding

Round the hundreds place.

56,708,024

56,708,000

Name _____

Personal Daily Warm-Up Tracking Sheet

	Forms of a Number	Value of Position	Comparing & Ordering	Rounding
Day 1				
Day 2				
Day 3				
Day 4				
Day 5				
Day 6				
Day 7				
Day 8				
Day 9				
Day 10				

Exit Tickets

Ten days worth of exit tickets and answer keys, with one question each, are included two to a page for easy copying.

Each of the questions is based on how that standard is tested, providing a test bridge and exposing students to test style language. This serves to build familiarity with standardized testing without overwhelming students.

Exit tickets can be checked as a class, or by the teacher. A checklist of questions/standards is including to track how students are doing on their exit tickets.

Exit Ticket Day 1

Name _____

In the number shown, one digit is underlined and one digit is bold. Which statement about the bold number is true?

5,<u>5</u>64

a. Its value is 10 times greater than that of the underlined number
b. Its value is 1/10 the value of the underlined number
c. Its value is 50 times the value of the underlined number
d. Its value is 1/50 the value of the underlined digit

Exit Ticket Day 1

Name _____

In the number shown, one digit is underlined and one digit is bold. Which statement about the bold number is true?

5,<u>5</u>64

a. Its value is 10 times greater than that of the underlined number
b. Its value is 1/10 the value of the underlined number
c. Its value is 50 times the value of the underlined number
d. Its value is 1/50 the value of the underlined digit

Place Value

Exit Ticket Answer Key

Day 1	A
Day 2	C
Day 3	B
Day 4	D
Day 5	A
Day 6	C
Day 7	A
Day 8	C
Day 9	D
Day 10	B

Exit Ticket Student Checklist

Student	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	[illegible]	Day 9	Day 10

Daily Lessons

Ten daily lessons are included in this unit. Each lesson includes:

- Guiding question(s)
- Objectives
- List of necessary materials
- Overview of the lesson
- Student activity sheets when applicable
- Suggestions for small group activity

Day 1 Pre-assessment & Introduction To Place Value Chart

Day 2 Naming Numbers

Day 3 Forms of a Number

Day 4 Real World Modeling, Reading, And Writing Numbers

Day 5 Comparing Whole Numbers

Day 6 Comparing Whole Numbers In The Real World

Day 7 Ordering Whole Numbers

Day 8 Rounding Whole Numbers

Day 9 Place Value Project

Day 10 Review Game

Pre-Assessment & Place Value Chart

Guiding Question

How can a place value chart help us to understand the value of a number?

Materials

- Pre-assessment
- Laminated place value charts
- Math journals
- Anchor chart paper

Learning Objective

We will show the value of a number from zero to one billion using a place value chart.

Lesson

Begin by giving students the pre-assessment as a check for prior understanding.
As a class talk about what they already know about place value. Create an anchor chart with their knowledge. Also on the anchor chart create a place value chart extending from the hundredths up to one billion one period at a time. Fourth grade is the first grade level in which decimals are used outside of money, so take care to introduce them slowly. Review with students what a period is. Pass out laminated student place value charts (this could also be completed in journals) and practice recording numbers using the proper place value. For example: call out the number 7,823,195 for students to record on their own charts and then check together. Repeat as time allows.

Small Group Ideas

Use base ten blocks to build numbers and model how to record the number in standard form as well as by drawing a model.

Example Anchor Chart

On the first day the anchor chart remains simple with just the place value chart along with any prior knowledge that students may have.

Place Value Chart

hundredths		
tenths		
.	.	and
ones		
tens		
hundreds		
,	,	
thousands		thousand
ten thousands		
hundred thousands		
,	,	
million		million
ten million		
hundred million		
,	,	
billion		

Place Value Time to Shine!

Name _____

1 What is the expanded notation for 298,309,496?

2 Jasmine sold 300 raffle tickets. One-tenth of those tickets will be winners. How many winners are there?

3 There are over three hundred twenty-seven thousand, four hundred three types of beetles. What is this number in standard form?

4 Guadalupe Peak in Texas is eight thousand, seven hundred fifty-one feet high. What is its height in standard form?

5 Maxim's school library has 700 books. The public library has 10 times as many books. How many books does the public library have?

6 On Monday 172,409 packages were delivered. On Tuesday 179,001 packages were delivered, and on Wednesday 177,999 packages were delivered. Order the days from least to greatest according to packages delivered.

7 Yesenia collected 21,983 stamps. Jerry collected 21,895 stamps. Write a comparative statement about their stamp collection.

8 The Astrodome can hold a max of 67,925 people. Write this number is expanded notation.

9 There are 47,918 students in a school district. What is this number rounded to the nearest thousand?

10 A dozen breakfast tacos costs $10.97. Write the cost in expanded notation.