

Lesson 1: Place Value of Whole Numbers

Objective: Students will be able to use their knowledge of place value to recognize, read and write multi-digit numbers correctly through the hundred millions place.

Warm-Up:

- To begin, working with a partner students will be given a random assortment of base ten blocks and asked to build numbers up to 1,000 and write the number they built correctly on their white board. I will also show them how to draw the base ten blocks to represent numbers. This may work better for some learners and they can use this method when they don't have enough base ten blocks.
- Next, each group will present their number and as a class students will check for accuracy.

Presentation:

- To begin, present the FlipChart on Promethean board.
 - Page 1: Introduce the lesson. Discuss student predictions about what we are going to be working on for this lesson.
 - Page 2: Have students work with their partner to write the numbers in standard form, and then explain their thoughts on the choice they made regarding the question.
 - Page 3: View and discuss the place value chart. Roll a die and have students work with their partners to write numbers up to 1,000, increase to 100,000, and then to 100,000,000. Each time you roll the die have students choose where they would like to place the digit. Once students have built the number ask students to correctly read the number aloud.
 - Page 4: Have groups identify the place value of each digit in red. Discuss the value of the digit and its position in the numbers. Then have groups make similar type problems for their classmates to solve. Have groups exchange problems and then meet together to check for accuracy.
 - Pages 5-6: Introduce the vocabulary word, period. Discuss the questions on the pages as a class to ensure students have a good understanding of what a period is and how to correctly place commas in a number.

Controlled Practice: Groups will work together to create two or three problems for their classmates. Students can create their problems any way they would like to review any of the concepts presented in the lessons. Take time to allow groups to share their problems with the class and check for accuracy and understanding.

Free Practice: Students will continue to work with their partner to complete the following problems.

- 1. Write the value of each digit for the given number.
 - 2,904
 - 6,423
 - 72,630
- 2. Build the three numbers in #1 with base ten blocks.

Write the missing numbers...use base ten block if needed.

- 3. 40 tens = _____ hundreds
 - 4. _____ tens 15 ones = 6 tens 5 ones
 - 5. 60 hundreds = _____ thousands
 - 6. 18 tens 20 ones = _____ hundreds
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Lesson 2: Place Value of Whole Numbers and Basic Multiplication Vocabulary

Objective 1: Students will be able to use their knowledge of place value to recognize, read and write multi-digit numbers correctly through the hundred millions place.

Objective 2: Students will be able to identify the factors and the product in a multiplication problem.

Warm-Up: To begin, write the numbers below on the board. Then, working with a partner, students will write the value of the red digit correctly on their white board. Check for accuracy.

- 849,567,043
- 9,422,850
- 96,283
- 498,354,021
- 791,350

Next, ask groups to say the numbers accurately. Also, using these five number quiz students about the periods of each number as a review of lesson one's vocabulary word.

Presentation:

- To begin, present the FlipChart on Promethean board.
 - Page 1: Introduce the lesson. Discuss student predictions about what we are going to be working on for this lesson.

- Page 2: Introduce the new vocabulary: factor and product.
- Page 3: Students will work with their partners to identify factors and products and complete the four questions on this page.
- Page 4: Students will work with their partners reviewing place value from lesson one and complete the five questions on this page.
- Page 5: Introduce new vocabulary: standard, word, and expanded form. Students will work with their partners to complete the five questions on this page, writing numbers in expanded form on their white boards and saying the numbers correctly.
- Page 6: Students will practice reading/saying numbers correctly with their partner and then write them correctly on their white boards.
- Page 7: Students will practice writing numbers in standard form.

Controlled Practice: Groups will work together to create two or three place value type problems for their classmates. Students can create their problems any way they would like to review any of the concepts presented in the lessons. Take time to allow groups to share their problems with the class and check for accuracy and understanding.

Free Practice: Students will continue to work with their partner to complete the following problems.

- 1. Write the number in standard and expanded form.
 - 345,000
 - 119,000,003
- 2. Find the missing factor.
 - $4 \times \underline{\quad} = 24$
 - $6 \times \underline{\quad} = 48$
 - $\underline{\quad} \times 9 = 63$
- 3. What's the error?
 - Matt wrote the number four million, three hundred five thousand, seven hundred sixty-two as 4,350,762. Describe and correct his error.
- 4. Explain.
 - How do you know that the values of the digit 5 in the numbers 150,000 and 100,500 are not the same?