

Unit 2 – Practice Test and Study Guide

Directions: Solve the number riddles.

- 1.) I am a 5 digit number.
My 6 is worth $6 * 10,000$.
My 2 is worth 200.
One of my 3s is worth 3.
The other 3 is worth 1,000 times as much.
My other digit is a 7.

What number am I? _____

- 2.) I am a 6 digit number.
One of my 5s is worth 500,000.
The other 5 is worth $\frac{1}{10}$ as much.
My 6 worth 6 [100s].
My 4 is worth 40.
My other digits are 0.

What number am I? _____

3.) Answer the questions about Avery.

a.) Avery collects cans for recycling. When he has 1,000 cans, the recycling center will pick them up from his house. Avery has 80 bags with about 40 cans in each bag. Should he call the recycling center to arrange a pick up? Explain how you know.

b.) Did you have to find an exact answer to solve problem a? Explain why or why not.

4.) Complete the table.

Standard Notation	Products of 10s	Exponential Notation
10		
	$10 * 10 * 10$	
100,000		
		10^7

5.) Solve the problems.

a.) Asha and Carol were playing *High-Number Toss*. They created the numbers shown below. Write each player's number in standard notation. Name the player who won the round.

Asha: $378 * 10^4$

Carol: $657 * 10^3$

Who won the round? _____

b.) Explain how you wrote each number in standard notation.

6.) Write the number 1, 744, 326 in expanded form.

7. Convert pounds to ounces in the table.

Pounds	Ounces	Pounds	Ounces
1	16	6	
3		8	
4		10	

8.) Write an expression with grouping symbols to model the number story. Use an asterisk (*) to represent multiplication if needed.

Colin is shipping a gift to his cousin. The gift weighs 6 pounds. The box and shipping materials weigh 11 ounces. What is the total weight of the package in ounces?

Number Model: _____

Answer: _____ ounces

9.) **Create a mathematical model for the problem. Then solve the problem and show your work.**

Patrick is helping out in the school library. He needs to figure out how many shelves the library staff should order for a new reading corner. There are 276 books for the reading corner. Each shelf holds 45 books. The librarian wants to put all the books on shelves. How many shelves should the library order?

Quotient: _____ Remainder: _____

What does the remainder represent? State whether you ignored the remainder or rounded the remainder up. Why?

Answer: The library should order _____

Make an estimate. Then solve the U.S. traditional multiplication. Use your estimate to check whether your answer makes sense.

10.) $478 * 6 = ?$

11.) $39 * 21 = ?$

Estimate: _____

Estimate: _____

Answer: _____

Answer: _____

12.) $825 * 4 = ?$

Estimate: _____

Answer: _____

13.) $68 * 15 = ?$

Estimate: _____

Answer: _____

Make an estimate. Then solve using long division. Use your estimate to check whether your answer makes sense.

14.) $225 \div 9 = ?$

Estimate: _____

Answer: _____

15.) $880 \div 20 = ?$

Estimate: _____

Answer: _____

16.) $731 \div 9 = ?$

Estimate: _____

Answer: _____

17.) $657 \div 31 = ?$

Estimate: _____

Answer: _____