

REVIEW

Name _____



End of Unit 1 Assessment

Number Sense and Fluency

Exponents, PEMDAS, Patterns, Divisibility Rules,

Primes, Composites, Prime Factorization,

Factors, Multiples, LCM, GCF

Math 6

Period _____

Test Date: Friday, October, 2019

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You are responsible for the information taught in class and on homework. Remember that mathematics is a subject that spirals (it builds upon itself), so keeping up with concepts as we go is very important. Good Luck!

Do you know your **vocabulary**? Can you match them here?

_____ Product

a. A set of **prime numbers** whose **product** equals a composite number

_____ Least Common Multiple

b. **A number multiplied by itself** the number of times shown by an exponent

_____ Base

c. A number that **divides another number** (goes into) **without a remainder**

_____ Order of Operations

d. **The rules** telling **what order** to do all the operations in

_____ Prime Number

e. A **raised number** telling how many times another number is being multiplied by itself

_____ Factor

f. The **smallest multiple** common to two or more numbers

_____ Exponent

g. A number greater than 1 with **three or more** whole positive **factors**

_____ Composite Number

h. A whole number greater than 1 with **exactly two** whole positive **factors**: 1 and itself

_____ Prime Factorization

i. The **answer** to a multiplication sentence

1. Exponents

Know how to use exponents to express numbers

Know how to write expressions containing exponents in standard form.

Complete the table:

Exponential Form	Expanded Form	Standard Form
8^3		
	$4 \times 4 \times 4 \times 4$	
		216
9^2		
	$2 \times 2 \times 2 \times 2 \times 2 \times 2$	
		49

2. Order of Operations

Know how to use order of operation rules to solve arithmetic problems (PEMDAS)

* make sure you remember: - addition/subtraction left to right
- multiplication/division left to right

Evaluate.

a) $8 \div 2 \times 12$

b) $32 - 2 \times 12 + 4$

c) $26 - 9 \times 3$

e) $19 + 24 \div 8 \times 2$

f) $24 \div (5 + 3) + 2 \times 9$

g) $12 + (2^3 - 4)^2 + 1$

3. Numerical Patterns

Know how to identify and continue numerical patterns.

Find the next three numbers in the pattern.

a) 9, 12, 24, 27, 54.....

b) 18, 19, 21, 24, 28, 33.....

4. Divisibility

Know the rules of divisibility and how to apply them.

a) Write the divisibility rule for each number. ***we will NOT be testing on divisibility by 4 or 8**

2 _____

3 _____

5 _____

6 _____

9 _____

10 _____

b) Put a check in each column to show divisibility; if the number is prime, leave the row blank.

	2	3	5	6	9	10
29						
324						

5. Prime and Composite Numbers

Use divisibility Rules and other means to tell if a number is prime or composite;

List the first 12 prime numbers

6. Prime Factorization

Use factor trees to find the prime factorization of a composite number.

Use Prime Factorization to find LCM and GCF of two or more numbers

Find the prime factorization of the following numbers. Create factor trees. Write your answer in **exponential notation** if possible.

a) **45**

b) **92**

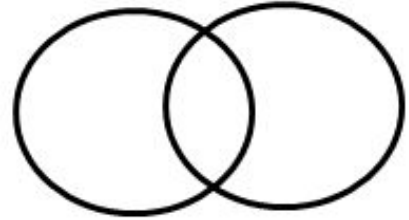
c) **81**

LCM is the _____ of two or more numbers. It is the smallest number that your target numbers GO INTO.

GCF is the _____ of two or more numbers. It is the largest number that GOES INTO your target numbers.

Find the LCM and GCF of each pair of numbers. To solve, you must use prime factorization with venn diagrams.

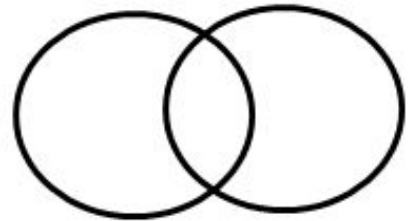
a) 12 and 18



LCM = _____

GCF = _____

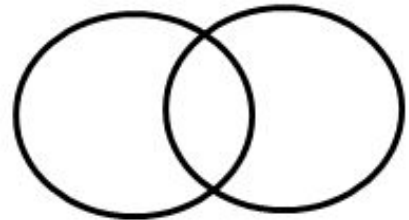
b) 8 and 15



LCM = _____

GCF = _____

c) 28 and 63



LCM = _____

GCF = _____

7. Word Problems/Application

Riddle Me This:

- a.) I am a five digit number divisible by 2 and 5. My hundreds and thousands digits are the same. My ten thousands digit is twice the value of my tens digit. The sum of my digits is 6. Who am I?
- b.) Jamie claims that 25,947 is a prime number. Use your divisibility rules to prove that they are incorrect.
- c.) At the carnival you write a number on a card. You receive a point for each of the following numbers that your number is divisible by: 2, 3, 5, 6, 9, and 10.

Sarah wrote 23,950 _____ points

Kevin wrote 124,122 _____ points

Anna wrote 62,424 _____ points

Who won?

**Please feel free to come to Extra Help for extra practice
and help in any of these topics!**

**Extra Help this week: Wednesday Morning before school (7-7:30 am)
 Thursday After School (2:10 – 2:45 pm).**

Whole Class Review Thursday during class.