Factors, Prime Factorization, GCF, Multiples & LCM Practice

1. List all the factors for each number.

   a) 12 _____

   b) 44 _____

   c) 49 _____

   d) 24 _____

   e) 25 _____

   f) 30 _____

   g) 20 _____

   h) 26 _____

   i) 33 _____

   j) 35 _____

2. List the Prime Factorization for each number.

   a) 49   b) 33   c) 81   d) 65

   e) 28   f) 40   g) 34   h) 78

3. Find the Greatest Common Factor for each set of numbers.

a) 8, 12

b) 15, 21

c) 25, 54

d) 45, 54

e) 7, 15, 21

f) 30, 40, 65

4. List the first 10 multiples of each number.

a) 2 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

b) 3 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

c) 4 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

d) 5 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

e) 6 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

f) 7 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

g) 8 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

h) 9 = ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

5. Find the Lowest Common Multiple for each set of numbers.

a) 3, 7

b) 8, 12

c) 6, 13

d) 12, 28

e) 8, 20

f) 30, 44

g) 7, 15, 21

h) 14, 70, 5

Word Problems

6. Jazmin is completing an art project. She has two pieces of construction paper. The first piece is 44 centimeters wide and the second piece is 33 centimeters wide. Jazmin wants to cut the paper into strips that are equal in width and are as wide as possible. How wide should Jazmin cut each strip?

7. Tim has 39 pairs of headphones and 13 music players. Tim wants to sell all of the headphones and music players in identical packages. What is the greatest number of packages Tim can make?

8. Ronal and Tim both did their laundry today. Ronald does laundry every 6 days and Tim does laundry every 9 days. How many days will it be until Ronald and Tim both do laundry on the same day again?
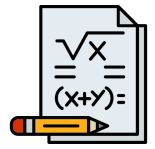
9. Peter's Party Zone sells cups in packages of 6 and plates in packages of 8. Shaniya is hosting a birthday party for her little sister and wants to have the same number of each item. What is the least number of packages of plates Shaniya needs to buy?

10. Pencils come in packages of 10. Erasers come in packages of 12. Phillip wants to purchase the smallest number of pencils and erasers so that he will have exactly 1 eraser per pencil. How many packages of pencils and erasers should Phillip buy?

11. Kiara baked 30 oatmeal cookies and 48 chocolate chip cookies to package in plastic containers for her friends at school. She wants to divide the cookies into identical containers so that each container has the same number of each kind of cookie. If she wants each container to have the greatest number of cookies possible, how many plastic containers does she need?

12. Boxes that are 12 inches tall are being stacked next to boxes that are 18 inches tall. What is the shortest height at which the two stacks will be the same height?

13. Beginning at 8:30 A.M., tours of the National Capitol and the White House begin at a tour agency. Tours for the National Capitol leave every 15 minutes. Tours for the White House leave every 20 minutes. How often do the tours leave at the same time?

14. Two neon lights are turned on at the same time. One blinks every 4 seconds and the other blinks every 6 seconds. In 60 seconds, how many times will they blink at the same time?
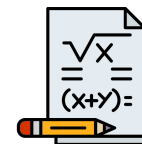
15. The table provided shows the number of students in the school choir.

The choir teacher plans to arrange the students in equal rows. Only girls or boys will be in each row. What is the greatest number of students that could be in each row?

School Choir	
Gender	# of Students
Girls	48
Boys	64

16. At a display booth at an amusement park, every visitor gets a gift bag. Some of the bags have items in them as shown in the table below.

Items in Gift Bags	
Items	Bags
Hat	Every 2nd Visitor
T-Shirt	Every 7th Visitor
Backpack	Every 10th Visitor

How often will a bag contain all three items?