

GCF and LCM Word Problems

1. 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?
 - A. 4 packages of pencils and 3 packages of erasers
 - B. 5 packages of pencils and 4 packages of erasers
 - C. 6 packages of pencils and 5 packages of erasers
 - D. 12 packages of pencils and 10 packages of erasers
2. 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?
3. 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**?
4. 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**?
 - A. Every 15 minutes
 - B. Every 30 minutes
 - C. Every 45 minutes
 - D. Every 60 minutes
5. 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**?

6. The table below shows the number of students in the school choir.

School Choir

Student s	Number
Girls	48
Boys	64

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?

- A. 16 B. 12 C. 8 D. 4
7. 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 the Gift Bags

Items	Bags
Hat	Every 2 nd visitor
T-shirt	Every 7 th visitor
Backpack	Every 10 th visitor

How often will a bag **contain all three items**?

- A. Every 14 bags
B. Every 19 bags
C. Every 70 bags
D. Every 140 bags
8. Bridget has swimming lessons every fifth day and diving lessons every third day. If she had a swimming lesson and a diving lesson on May 5, when will be the next date on which she has **both swimming and diving lessons**?