

# GCF & LCM Worksheet

Name \_\_\_\_\_

1. Find the following. Show your work!

A)  $\text{GCF}(24,90) = \underline{\hspace{2cm}}$   $\text{LCM}(24,90) = \underline{\hspace{2cm}}$

B)  $\text{GCF}(17,85) = \underline{\hspace{2cm}}$   $\text{LCM}(17,85) = \underline{\hspace{2cm}}$

C)  $\text{GCF}(27,32) = \underline{\hspace{2cm}}$   $\text{LCM}(27,32) = \underline{\hspace{2cm}}$

***Show your work and don't forget your UNITS!***

2. The bells at two churches ring on different schedules. One bell rings every half hour, the other every 45 minutes. If both bells ring at 8:00 AM this morning, what time will it be when both bells ring again at the same time?

3. Jackie spent the same amount of money on cassette tapes and compact discs. If tapes cost \$12 and CDs cost \$16, what is the least amount of total money she could have spent for BOTH purchases?

4. A large field measures 70 feet by 525 feet. If you divide it up into equal square garden plots, what size would the largest possible plot be with sides of whole number length?

5. Kris and Micky are running laps around the same track. Kris can run one lap in 8 minutes but Micky takes 12 minutes. If they both start at the same place, the same time, and run in the same direction, at what time will they first pass each other?

6. There are three fourth grades classrooms (A, B, and C) at the local elementary school. Room A contains 12 children, Room B contains 18, and Room C contains 24 children. All the fourth graders get together to play a game in the middle of the day. The teachers want the children to be on teams with their own classmates but all the teams also need to be of equal size. Can you find the **largest** size of the teams so that each team contains only children from the same classroom?

7. An art teacher needs to cut out squares of paper for an art project from a left-over sheet of paper measuring 72 x 104 inches. What size would the biggest possible square be with sides of whole number length?

8. A radio station is offering a promotion for a concert. Every 6th caller will receive a T-shirt and every 10th caller will receive a free concert ticket. Which caller will be the first to receive both a T-shirt and a free concert ticket?

9. What is the largest size of equal square tiles that could be used to make a checkerboard pattern on a floor measuring 128 inches by 96 inches?

***Be specific in your answers (don't just give the definition); looking at an example may help you identify the abstract limits of what can happen. Be specific in describing the maximum and minimum limits.***

10. Do two natural numbers always have a GCF? \_\_\_\_\_

How small can the GCF be for any pair of natural numbers?

How big can the GCF be for any pair of natural numbers?

11. Do two natural numbers always have an LCM? \_\_\_\_\_

How small can the LCM be for any pair of natural numbers?

How big can the LCM be for any pair of natural numbers?