GCF or LCM? Practice

Name _____

You can use these clues to help you decide when to find the GCF and when to find the LCM.

Greatest Common Factor			Least Common Multiple		
biggest	both	divide	first	both	something is repeated
largest	identical	groups	smallest	identical	every ___ days
most	same	split up	next time	same	every ___ hours
maximum	equal		minimum	equal	

Carefully read each problem.   Decide if the situation calls for the GCF or the LCM. Find the solution.

A choir director at your school wants to divide the choir into smaller groups. There are 24 sopranos, 60 altos, and 36 tenors. Each group will have the same number of each type of voice. What is the greatest number of groups that can be formed?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

Mary and Nancy work at a calculator producing factory. It is their job to inspect the calculators to make sure that they are working, before the calculators are shipped to stores. If Mary inspects every twelfth calculator and Nancy inspects every ninth calculator, which calculator will be the first that they both inspect?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

There are 100 seniors and 80 juniors in the Homecoming Parade. The students split up into groups of equal size, to fit on the parade floats. They want the most students possible on each float, with just juniors or just seniors on each float. How many students should be on each float?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

GCF or LCM? **Homework**   Name _____

You can use these clues to help you decide when to find the GCF and when to find the LCM.

Greatest Common Factor			Least Common Multiple		
biggest	both	divide	first	both	something is repeated
largest	identical	groups	smallest	identical	every ___ days
most	same	split up	next time	same	every ___ hours
maximum	equal		minimum	equal	

Carefully read each problem.   Decide if the situation calls for the GCF or the LCM. Find the solution.

One trip around a running track is 440 yards. One jogger can complete one lap in 8 minutes, the other can complete it in 6 minutes. How many minutes will pass until the next time both joggers to arrive at their starting point together if they start at the same time and maintain their jogging pace?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

Mr. Smith waters one of his plants every 10 days and another plant every 14 days. If he waters both plants today, when is the next time both plants will be watered on the same day?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

Seth has 15 cans of regular soda and 20 cans of diet soda. He wants to create some identical refreshment tables that will operate during the high school football game. He also doesn't want to have any sodas left over. What is the greatest number of refreshment tables that Seth can stock?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

It is Greg's turn to bring snacks and juice for the soccer team. At the grocery store, he found some juice boxes and cookies that were on sale. The juice boxes come in packs of 6. The cookies come in packs of 8. If Greg wants an equal number of juice boxes and cookies, what is the minimum number of juice boxes should he buy?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

Kevin is creating lollipop bouquets using 15 cherry lollipops and 18 orange lollipops. He wants each bouquet to be identical, with no lollipops left over. What is the greatest number of lollipop bouquets Kevin can create?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

Pamela is serving plates of vegetables at a homeless shelter. She has 30 carrot sticks and 45 baby potatoes that she wants to divide evenly, with no food left over. What is the greatest number of plates Pamela can prepare?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were:

Here is my work and my solution:

Written Response

Explain the difference between listing the factors of a number and listing the multiples of a number. You can use examples if you would like.

GCF or LCM? **Practice**   KEY

You can use these clues to help you decide when to find the GCF and when to find the LCM.

Greatest Common Factor			Least Common Multiple		
biggest	both	divide	first	both	something is repeated
largest	identical	groups	smallest	identical	every ___ days
most	same	split up	next time	same	every ___ hours
maximum	equal		minimum	equal	

Carefully read each problem.   Decide if the situation calls for the GCF or the LCM. Find the solution.

A choir director at your school wants to divide the choir into smaller groups. There are 24 sopranos, 60 altos, and 36 tenors. Each group will have the same number of each type of voice. What is the greatest number of groups that can be formed?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were: divide, groups, greatest

Here is my work and my solution: 12 groups

Mary and Nancy work at a calculator producing factory. It is their job to inspect the calculators to make sure that they are working, before the calculators are shipped to stores. If Mary inspects every twelfth calculator and Nancy inspects every ninth calculator, which calculator will be the first that they both inspect?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were: every 12th, every 9th, first

Here is my work and my solution: 36th calculator

There are 100 seniors and 80 juniors in the Homecoming Parade. The students split up into groups of equal size, to fit on the parade floats. They want the most students possible on each float, with just juniors or just seniors on each float. How many students should be on each float?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were: split up, groups, most

Here is my work and my solution: 20 students

GCF or LCM? Homework

KEY

You can use these clues to help you decide when to find the GCF and when to find the LCM.

Greatest Common Factor			Least Common Multiple		
biggest	both	divide	first	both	something is repeated
largest	identical	groups	smallest	identical	every ___ days
most	same	split up	next time	same	every ___ hours
maximum	equal		minimum	equal	

Carefully read each problem.   Decide if the situation calls for the GCF or the LCM. Find the solution.

One trip around a running track is 440 yards. One jogger can complete one lap in 8 minutes, the other can complete it in 6 minutes. How many minutes will pass until the next time both joggers to arrive at their starting point together if they start at the same time and maintain their jogging pace?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were: something is repeated, next time

Here is my work and my solution: lap #24

Mr. Smith waters one of his plants every 10 days and another plant every 14 days. If he waters both plants today, when is the next time both plants will be watered on the same day?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were: every 10 days, every 14 days, next time

Here is my work and my solution: day 70

Seth has 15 cans of regular soda and 20 cans of diet soda. He wants to create some identical refreshment tables that will operate during the high school football game. He also doesn't want to have any sodas left over. What is the greatest number of refreshment tables that Seth can stock?

GCF or LCM? (circle one)

At least 2 clues that helped me decide were: greatest, he is dividing, he is making groups

Here is my work and my solution: 5 refreshment tables

It is Greg's turn to bring snacks and juice for the soccer team. At the grocery store, he found some juice boxes and cookies that were on sale. The juice boxes come in packs of 6. The cookies come in packs of 8. If Greg wants an equal number of juice boxes and cookies, what is the minimum number of juice boxes should he buy?

GCF or (LCM?) (circle one)

At least 2 clues that helped me decide were: minimum, packs of 6 and 8 are repeated

Here is my work and my solution: 24 juice boxes

Kevin is creating lollipop bouquets using 15 cherry lollipops and 18 orange lollipops. He wants each bouquet to be identical, with no lollipops left over. What is the greatest number of lollipop bouquets Kevin can create?

(GCF) or LCM? (circle one)

At least 2 clues that helped me decide were: he is making groups, greatest

Here is my work and my solution: 3 bouquets

Pamela is serving plates of vegetables at a homeless shelter. She has 30 carrot sticks and 45 baby potatoes that she wants to divide evenly, with no food left over. What is the greatest number of plates Pamela can prepare?

(GCF) or LCM? (circle one)

At least 2 clues that helped me decide were: divide, greatest

Here is my work and my solution: 15 plates

Written Response

Explain the difference between listing the factors of a number and listing the multiples of a number. You can use examples if you would like.

Factors are numbers you can divide by. You get multiples when you keep multiplying.
For example, factors of 20 are 1, 2, 4, 5, 10, 20. Multiples of 20 are 20, 40, 60, 80, 100, etc.