HCF, LCM and Fractions

Part A: Highest Common Factor (HCF)

- Find the HCF of 12 and 18.
- Find the HCF of 24 and 36.
- Find the HCF of 15 and 25.
- Find the HCF of 8 and 20.
- Find the HCF of 6 and 9.
- Find the HCF of 10 and 15.
- Find the HCF of 9, 12, and 15.

Part B: Least Common Multiple (LCM)

- Find the LCM of 4 and 6.
- Find the LCM of 5 and 10.
- Find the LCM of 7 and 14.
- Find the LCM of 3 and 4.
- Find the LCM of 2 and 10.
- Find the LCM of 6 and 9.
- Find the LCM of 3, 4, and 6.

Part C: Fractions

Basic Fraction Problems

1. What is 1/2 + 1/4?
2. What is 3/4 - 1/4?
3. Which is larger: 2/5 or 1/3?
4. If you have 2/3 of a chocolate bar and eat 1/3 of it, how much is left?

Fraction Problems Using LCM

1. Add 1/3 + 1/6
2. Add 1/4 + 1/2
3. Which is larger: 3/8 or 2/6?
4. Add 2/5 + 1/10
5. Subtract 3/4 - 1/8

6. Which fraction is larger?.

   a) 1/2 or 1/4

   b) 2/3 or 3/5

   c) 3/8 or 1/2

7. Add the following fractions:

   a) 1/4 + 1/8 = _____

   b) 1/3 + 1/6 = _____

   c) 3/10 + 1/5 = _____

8. Subtract the following fractions:

   a) 3/4 - 1/2 = _____

   b) 5/6 - 1/3 = _____

   c) 7/8 - 1/4 = _____

Part D: Word Problems (HCF)

1. Sam has 8 red candies and 12 blue candies. He wants to arrange them in equal groups with the same number of each color. What is the largest number of groups he can make?

2. Ms. Johnson has 15 boys and 20 girls in her class. For a group activity, she wants to divide them into equal teams with the same number of boys and girls in each team. What is the maximum number of teams she can create?

Part E: Word Problems (LCM)

1. The school bell rings every 15 minutes. The lunch bell rings every 45 minutes. If both bells ring together at 9:00 AM, when will they next ring together?

2. Maya practices piano every 3 days and violin every 4 days. If she practiced both instruments today, after how many days will she practice both instruments on the same day again?

Part F: Mixed Problems

1. Maria ate 1/4 of a pizza and her brother ate 2/8 of the pizza. How much of the pizza did they eat altogether?

2. Three friends are jumping rope. Ann jumps every 2 seconds, Ben jumps every 3 seconds, and Carlos jumps every 4 seconds. If they all jump together at the start, after how many seconds will they all jump together again?

3. A teacher has 32 pencils and 24 erasers. She wants to make gift bags for students with equal numbers of pencils and erasers in each bag. What is the maximum number of gift bags she can make?

4. Tom is building a fence. He has 24 long boards and 18 short boards. He wants to make identical fence sections using all boards. Each section must have the same number of long boards and the same number of short boards. What is the maximum number of fence sections he can build?

5. The red light flashes every 6 seconds and the blue light flashes every 8 seconds. If they flash at the same time now, after how many seconds will they flash together again?

6. James waters his plants every 2 days, Sarah waters her plants every 3 days, and David waters his plants every 4 days. If they all watered their plants today, after how many days will they all water their plants on the same day again?

7. Emma wants to arrange 30 red flowers and 45 white flowers in vases. Each vase must have the same number of red flowers and the same number of white flowers. What is the maximum number of vases she can use?

8. John has 2/3 of a chocolate bar. He gives 1/6 of the chocolate bar to his friend. How much of the chocolate bar does he have left?
