**Supercells** 

## A. Choose the Correct Answer:

- 1. Which of the following is a multiple of both 4 and 6?
  - a) 12 b) 14
  - c) 16 d) 18

#### 2. A number is divisible by 9 if:

- a) The number is even
- b) The last digit is 9
- c) The sum of its digits is divisible by 9
- d) The number ends with 0
- 3. What is the smallest 3-digit number divisible by both 5 and 6?
  - a) 100 b) 105
  - c) 120 d) 150

### **B.** Write the Missing Terms to Complete the Sentences:

- 1. A number that is divisible by 2 and 3 is also divisible by \_\_\_\_\_.
- 2. The least common multiple of 4 and 5 is \_\_\_\_\_.
- 3. If the sum of digits of a number is divisible by 3, then the number is divisible by
- 4. All even numbers are divisible by \_\_\_\_\_.
- 5. A number divisible by 10 must end in \_\_\_\_\_.

### C. Figure out the answers to these questions:

- 1. Find the LCM of 6, 9, and 15 using the division method.
- 2. Write the first five common multiples of 3 and 4.
- 3. A "super cell" number is a number divisible by both 4 and 6. Write all such super cell numbers between 30 and 100.
- 4. What is the smallest number that is a multiple of 5, 6, and 9?
- 5. A machine beeps every 12 minutes, and another beeps every 18 minutes. If they beep together at 9:00 AM, at what time will they beep together again?
- If a number is divisible by both 2 and 9, explain whether it will be divisible by 18.

- 7. Circle all the numbers from the list that are "super cell" numbers: 24, 30, 36, 40, 48, 54, 60, 66
- 8. Find the HCF and LCM of 8 and 12 using the prime factorization method.

# D. Mark each sentence with a True ( $\checkmark$ ) or False (X):

- 1. Every number divisible by 6 is also divisible by 2 and 3.
- 2. 45 is a super cell number.
- 3. The number 120 is a multiple of 10, but not of 5.
- 4. All numbers divisible by 4 are also divisible by 8.
- 5. The LCM of 3 and 7 is 21.

### E. Challenge yourself with these questions:

- 1. Write any four 2–digit numbers that are divisible by both 4 and 6.
- 2. Make a code using "super cell" numbers for the word MATH (Assign each letter a super cell number).

- 3. Find the least number which when divided by 4 and 6 leaves a remainder of 2 in both cases.
- 4. A school bell rings after every 20 minutes. How many times will it ring in 3 hours if it starts ringing at 8:00 AM?
- 5. A robot walks 8 steps every minute and another robot walks 12 steps every minute. In how many minutes will they both take the same number of steps?