

# Factors, Multiples & Primes

Name:

Date:

**INQUIRY**

**Why do egg cartons come in 6s, 10s, and 12s but never 7s or 11s? The answer is about factors.**

Discuss with your partner. Write your initial ideas below:

## Key Vocabulary

Term	Definition
<b>Factor</b>	A number that divides exactly into another.
<b>Multiple</b>	The result of multiplying a number by an integer.
<b>Prime</b>	Only has exactly 2 factors: 1 and itself.
<b>HCF</b>	Highest Common Factor.
<b>LCM</b>	Lowest Common Multiple.

## Part A — Factors & Multiples

1. List all factors of: (a) 24 (b) 36 (c) 48. [3 marks]

2. List the first 5 multiples of: (a) 7 (b) 9 (c) 12. [3 marks]

3. Find the HCF of 18 and 24. [2 marks]

Show your working:

4. Find the LCM of 6 and 8. [2 marks]

Show your working:

## Part B — Primes

---

5. Is 51 prime? Explain. [2 marks]

6. List all prime numbers between 1 and 30. [2 marks]

## Part C — Application

---

7. At NIS, the fire alarm is tested every 12 days and the lunch bell is serviced every 18 days. Both happened today. In how many days will both happen on the same day again? [3 marks]

Show your working: