Names (group) _____ Date _____

Divisibility: Puzzles and Review

1 IN A GROUP **Guess my number.** Which number is it?

a) I am a two-digit number between 50 and 70. I am divisible by 9 and I am even. ☐

b) I am a prime number between 20 and 30. The sum of my digits is 11. ☐

c) I am divisible by 5 and by 6, and I am less than 50. ☐

d) I have exactly three factors and I am less than 30. (There is more than one answer!) ☐

2 IN A GROUP **Spot the odd one out.** In each row, one number does not belong. Circle it and explain why.

12	18	24	27	30
15	25	35	42	55
2	3	5	9	11
36	45	54	63	74

3 IN A GROUP A teacher has 24 pencils and 36 notebooks. She wants to share them so that every student gets the same number of pencils and the same number of notebooks, with nothing left over. What is the largest number of students she can share them between? How many does each student get?

Students: ☐ pencils each: ☐ notebooks each: ☐

Name _____ Date _____

4 ON YOUR OWN **Concept map.** For each term, write a short explanation and your own example.

factor

Example:

multiple

Example:

prime number

Example:

composite number

Example:

divisibility rule

Example:

prime factorisation

Example:

5 ON YOUR OWN **Self-check.** Tick how far you agree.

I can...	confidently	mostly	need practice
I can find all the factors of a number and its first few multiples.	☐	☐	☐
I can use the rules for divisibility by 2, 3, 5, 9 and 10 and explain why they work.	☐	☐	☐
I can tell prime and composite numbers apart.	☐	☐	☐
I can write the prime factorisation of a number using powers.	☐	☐	☐
I can decide from the prime factors whether a number is divisible by another.	☐	☐	☐

The Hundred Chart app · otooly.com/hundred-chart

Guess my number: use **My clues** to make a puzzle for a friend.