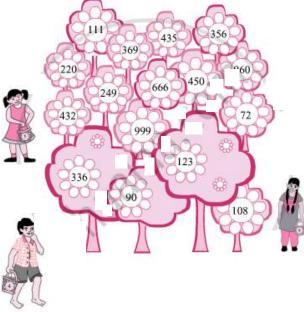
Chapter 8: Divisibility

PRACTICE SET 22 [PAGE 45]

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There are some flowering trees in a garden. Each tree bears many flowers with the same number printed on it. Three children took a basket each to pick flowers. Each basket has one of the numbers, 3, 4 or 9 on it. Each child picks those flowers which have numbers divisible by the number on his or her basket. He/She takes only 1 flower from each tree. Can you tell which numbers the flowers in each basket will have?



SOLUTION

Divisibility rule of 3:

A number is divisible by 3 if the sum of its digits is divisible by 3.

Flowers in basket number 3:

72, 90, 108, 111, 123, 249, 336, 369, 432, 435, 450, 666, 960, 999

Divisibility rule of 4:

A number is divisible by 4 if the number formed by the last two digits is divisible by 4.

Flowers in basket number 4:

72, 108, 220, 336, 356, 432, 960

Divisibility rule of 9:

A number is divisible by 9 if the sum of its digits is divisible by 9.

Flowers in basket number 9:

72, 90, 108, 369, 432, 450, 666, 999