



**SESSION : 17**

**CLASS : V**

**SUBJECT : MATHEMATICS**

**CHAPTER NUMBER: 8**

**CHAPTER NAME : FACTORS AND MULTIPLES**

**SUB-TOPIC : TEST OF DIVISIBILITY: RULES AND EXAMPLES**

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**CHANGING YOUR TOMORROW**

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## **LEARNING OBJECTIVE :**

**Enable the students**

- **To recall the tests of divisibility of 2, 3, 4, 5, 9 and 10.**
- **To know about the tests of divisibility of 8 and 11.**
- **To derive tests of divisibility by 6, 12 and 15.**

## Let's revise:

A. Numbers which are multiples of 2 are called even numbers.

Examples: 2, 4, 6, 8, 10, 12, 14, 16... etc.

B. Numbers which are not the multiples of 2 are odd numbers.

Examples: 1, 3, 5, 7, 9, 11, 13, 15... etc.



### Even and Odd Numbers

EVEN NUMBERS	ODD NUMBERS
END IN	END IN
0 2 4	1 3 5
6 8	7 9
Ex: 12, 46, 30	Ex: 11, 37, 23

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## TEST OF DIVISIBILITY: 2



If its one's digit is **even** or **0**, then the number is divisible by 2

**Examples: 0, 8, 36, 64, 1264... etc.**

## TEST OF DIVISIBILITY: 5



If its last [**one's**] digit is **0 or 5**, then the number is divisible by 5.

Examples: 15, 55, 90, 345, 7910

## TEST OF DIVISIBILITY: 10

If the **one's digit** is 0, then the number is divisible  
by 10.

Examples: 20, 250, 500, 12540... etc.



## TEST OF DIVISIBILITY: 3



If the **sum** of its digits is divisible **by 3**, then the number is divisible by 3.

Examples: 6, 12, 21, 18, 111, 2163... etc.

## TEST OF DIVISIBILITY: 9

If the **sum** of its digits is divisible **by 9** then, the number is divisible by 9.

Example: 18, 45, 72, 144, 3267... etc.



## TEST OF DIVISIBILITY: 4

If the number formed by its **last two digits** are divisible by 4

or

If the last two digits are **both 0**, then the numbers is divisible by 4.

Examples: 124, 416, 5440, 9600



## TEST OF DIVISIBILITY: 8

If the number formed by its **last three digits** are divisible by 8

or

If the last three digits are **0**, then the numbers is divisible by 8.

Examples: 124, 416, 5440, 9600



# WRAP UP



A number is Divisible by	If the last digit is
2	0, 2, 4, 6, 8
5	0, 5
10	0

A number is Divisible by	If the sum of its digit is divisible by
3	3
9	9

A number is Divisible by	If it is divisible by
6	2 and 3
12	3 and 4
15	3 and 5



## TEST OF DIVISIBILITY: 6



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If the number is divisible by **both 2 and 3** , then it is divisible by 6.

**Example: 72, 216, 3018, 21324... etc.**

## TEST OF DIVISIBILITY: 12



If it is divisible by **both 3 and 4**, then the number is divisible by 12

**Example: 24, 60, 2700, 56100... etc.**

## TEST OF DIVISIBILITY: 15



If it is divisible by **both 3 and 5**, then the number is divisible by 15.

Example: 45, 90, 450, 2700... etc.

## TEST OF DIVISIBILITY: 11

If the **difference** between the sum of the digits in the **odd** places and the sum of the digits in the **even** places is either **0 or 11**, then the number is divisible by 11

Examples: 308, 1331, 61809, 6556... etc.



Number	Sum of the digits (at odd places) From the right	Sum of the digits (at even places) From the right	Difference
308	$8 + 3 = 11$	0	$11 - 0 = 11$
1331	$1 + 3 = 4$	$3 + 1 = 4$	$4 - 4 = 0$
61809	$9 + 8 + 6 = 23$	$0 + 1 = 1$	$23 - 1 = 22$
6556	$6 + 5 = 11$	$6 + 5 = 11$	$11 - 11 = 0$

## **LEARNING OUTCOME :**

**Students are able to check the divisibility of a number by using the rules of tests of divisibility.**

**THANKING YOU**  
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