

SESSION : 18

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 8

CHAPTER NAME : FACTORS AND MULTIPLES

SUB-TOPIC : TEST OF DIVISIBILITY

Exercise 8 A Q.No.1 & 2

CHANGING YOUR TOMORROW

LEARNING OBJECTIVES :

Students will be able ;

To test the divisibility of a number by 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, and 15 using the rules of divisibility.



| 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: 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



TEST OF DIVISIBILITY: 11

If the **difference** between the sum of the digits at **odd places** (from the right) and the sum of the digits at **even places** (from the right) of the number is either **0** or **divisible by 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 | $6 + 5 = 11$ | $6 + 5 = 11$ | $11 - 11 = 0$ |



EXERCISE- 8 (A)

1. From the numbers given below mark the number which are divisible and which are not divisible by the numbers given on the left.

| Divisible by | Numbers | | | | | |
|-----------------|---------|-----|------|-------|-------|-------|
| | 99 | 184 | 7065 | 12480 | 23343 | 12210 |
| 3 | ✓ | X | ✓ | ✓ | ✓ | ✓ |
| 4 | X | ✓ | X | ✓ | X | X |
| 5 | X | X | ✓ | ✓ | X | ✓ |
| 6 | X | X | X | ✓ | X | ✓ |
| 9 | ✓ | X | ✓ | X | X | X |
| 11 | ✓ | X | X | X | X | ✓ |
| 12 | X | X | X | ✓ | X | X |
| 15 | X | X | ✓ | ✓ | X | ✓ |



EXERCISE- 8 (A)

2. What is the smallest number which should be (i) subtracted from and (ii) added to:

a. **3646** to get a number divisible by **3**

i. 1

ii. 2

Checking : $3 + 6 + 4 + 6 = 19$

$19 - 1 = 18$ or $19 + 2 = 21$

b. **12642** to get a number divisible by **4**

i. 2

ii. 2

c. **5213** to get a number divisible by **5**

i. 3

ii. 2



EXERCISE- 8 (A)

2. What is the smallest number which should be (i) subtracted from and (ii) added to:

d. **7427** to get a number divisible by **6** i. 5 ii. 1

e. **9466** to get a number divisible by **9** i. 7 ii. 2

f. **26,303** to get a number divisible by **11** i. 2 ii. 9



HOME ASSIGNMENT:

- **Complete Exercise – 8 A in your note book.**



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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