SESSION   : 2
CLASS   : IV
SUBJECT   : MATHEMATICS
CHAPTER NUMBER   : 9
CHAPTER NAME   : TESTS OF DIVISIBILITY
SUBTOPIC   : TESTS OF DIVISIBILITY,
                   EXPLANATION AND RULES

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

- **Enable the students to understand about the divisibility rules of different numbers.**

TEST OF DIVISIBILITY

Divisibility by 2:

A number is divisible by **2** if its last digit is an even number or zero; e.g. **24**, **92**, **178**, **778**, **2480**, **9000**, etc.

TEST OF DIVISIBILITY

Divisibility by 4:

A number is divisible by **4** if the number formed by its last two digit is divisible by **4** or if the last two digits are both zeros, e.g. **116**, **300**, **2148**, **6100**, etc.

TEST OF DIVISIBILITY

Divisibility by 3:

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

e.g. **NUMBER** **Sum of The Digit**

18 = 1 + 8 = **9** (divisible by **3**)

243 = 2 + 4 + 3 = **9** (divisible by **3**)

2463 = 2 + 4 + 6 + 3 = **15** (divisible by **3**)

6472 = 6 + 4 + 7 + 2 = **19** (not divisible by **3**)

So, **6472** is not divisible by **3**.

TEST OF DIVISIBILITY

Divisibility by 6:

A number is divisible by **6** if it is divisible by 2 and 3 i.e. its last digit (one's digit) must be an even number and the sum of its digit must be divisible by 3. (e.g. **84**, **264**, **2142**, etc).

TEST OF DIVISIBILITY

Divisibility by 5:

A number is divisible by **5** if its last digit (one's digit) is either zero or 5. (e.g. **60**, **200**, **775**, **1045,** etc).

TEST OF DIVISIBILITY

Divisibility by 9:

A number is divisible by **9** if the sum of its digit is divisible by **9**. (Just like **3**)
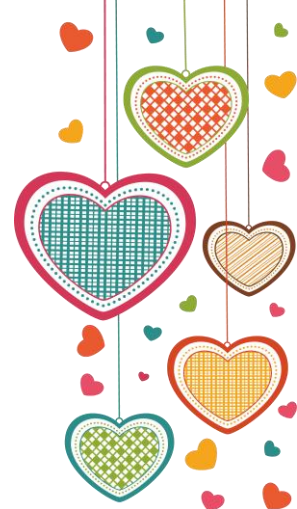
e.g. **NUMBER**   **Sum of The Digit**

4158 = 4 + 1 + 5 + 8 = **18** (divisible by **9**)

9846 = 9 + 8 + 4 + 6 = **27** (divisible by **9**)

8464 = 8 + 4 + 6 + 4 = **22** (not divisible by **9**)

So, **8464** is not divisible by **9**.

TEST OF DIVISIBILITY

Divisibility by 10:

A number is divisible by **10** if its last digit (one's digit) is zero. (e.g. **90**, **180**, **1700**, **58120,** etc).

TEST OF DIVISIBILITY

EXAMPLE: Check the divisibility of the following numbers.

a) 7122 by 3

Answer:

7122 : To check its divisibility, we will add all the together.

7 + 1 + 2 + 2 = **12**

12 is divisible by **3**.

So, the number **7122** is divisible by **3**.

TEST OF DIVISIBILITY

EXAMPLE: Check the divisibility of the following numbers.

b) 51,251 by 9

Answer:

51,251 : To check its divisibility, we will add all the together.

5 + 1 + 2 + 5 + 1 = **14**

14 is not divisible by **9**.

So, the number **51,251** is not divisible by **9**.

TEST OF DIVISIBILITY

EXAMPLE: Check the divisibility of the following numbers.

c)   79,684 by 4

Answer:

79,684 : As per divisible by 4 rule if the number formed by its last two digit is divisible by **4**.

84 is divisible by **4**.

As 4 × 21 = **84**

So, the number **79,684** is divisible by **4**.

TEST OF DIVISIBILITY

EXAMPLE: Check the divisibility of the following numbers.

d) 2,712 by 6

Answer:

2,712 : To check its divisibility, we will first look at the last digit and then add all the digits together. Since the last digit is even, it is divisible by 2.

2 + 7 + 1 + 2 = **12**

12 is divisible by **3**.

Since, 2,712 is divisible both by **2** and **3**, therefore the number **2,712** is divisible by **6**.

LEARNING OUTCOME:

Students are able to understand the divisibility rules of different numbers.

THANKING YOU
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