5(i)

For what value of digit x, is :-

1. 1x5 divisible by 3 ?

Solution,

Let take x as 0
105
Sum of the number 105 = 6

So, 6 is divisible by 3
$\Rightarrow x = 0$ (Ans)

2. 31x5 is divisible by 3 ?

Let take x as 3
3135
Sum of the number 3135 = 12

So, 12 is divisible by 3
$\Rightarrow x = 3$ (Ans)

3. 28x6 a multiple of 3 ?

Solution,

Let take x as 2
2826
Sum of the number 2826 = 18
So, 18 is multiple of 3
$\Rightarrow x = 2$ (Ans)

4. 24x divisible by 6 ?

Let take x as 0
240
sum of 240 = 6
6 is divisible when the number is divisible by 3 and 2.
So, 6 is divisible by 3 and 2
$\Rightarrow x = 0$ (Ans)

5. 3x26 a multiple of 6 ?

Solution,

Let take x as 1
3126
Sum of 3126 = 12
6 is divisible when the number is divisible by 3 & 2.
So, 12 is divisible by 3 and 2
$\Rightarrow x = 1$ (Ans).

6. 42x8 is divisible by 4 ?

Solution,

let take x as 0
4208
4 is divisible by 4 when the last two number is divisible by 4 and last digits are 00.
$\Rightarrow x = 0$ (Ans).

7. 9142x a multiple of 4 ?

Solution,

Let take x as 0
Add the ~~###~~ number 91420 = 16
So, 16 is a multiple of 4
⇒ x = 0 (Ans).

8. 7x34 divisible by 9 ?

Solution,

Let take x as 4
Add the sum = 7+4+3+4 = 18
So, 18 is divisible by 9
⇒ x = 4 (Ans).

9. 5x555 a multiple of 9 ?

Let take x as 7
Add the sum = 5+7+5+5+5 = 27
So, 27 is divisible by 9.
⇒ x = 7 (Ans).

10. 3x2 divisible by 11 ?

Solution,

Let take x as 5
= 352 = (3+2) − 5
= 5 − 5 = 0   So, x = 5 (Ans)

11. 5n2 a multiple of 11 ?

Solution,

Let take n as 7

$5\overset{\vee}{7}\overset{\vee}{2} = (5+2) - 7$

$= 7 - 7$

$= 0$ $\therefore n = 7$ (div).

A. Prusty.

— X —