Divisibility

Thursday, March 18, 2021 11:37 AM

=) Divisibility by 2:

-> no. should end with even no.

ex. 0, 2, 4, 6, 8 ....

ex. 56894 . -> yes

56745 -> No.

=) Divisibility by 3

-> sum of all digit should divisible by 3.

ex. 69521 => 6+9+5+1+2+1 => 27 is divisible by 3.

94863 => 35 => No.

=) Divisibility by 4.

-> if last two digits are divisible by 4 then true.

ex. 67937<u>6</u> -> 76 is divisible by 4 -> yes.

49613<u>8</u> -> 38 is divisible by 4 -> No.

=) Divisibility by 6.

-> if sum of all numbers and last no should be divisible by 2 & 3.

ex: 3525 6 → sum = 21 which is divisible by 3.

⇒ divisibility by 7:

→ Double the last number and subtract from the remaining no. if that no. is divisible by 7 → True.

ex: 203 ⇒ 20 - (3×2) ⇒ 14 is divisible by 7

ex: 2023 ⇒ 202 - (6) ⇒ 196 ⇒ 19 - 12 ⇒ 7 is divisible by 7

⇒ divisibility by 8

→ Hundred's and Ten's and unit no. is divisible by 8

ex: 16789352 ⇒ 352 is divisible by 8 ⇒ yes.

⇒ Divisibility by 9.

→ sum of all digits should divisible by 9

ex. 246591 ⇒ 2+4+6+5+9+1 ⇒ 27 → yes.

ex. 68956
73459 } → No

⇒ Divisibility by 11.

→ sum of difference between odd digit place and

even digit Place .

Ex. 2 9 4 3 5 4 1 7

$= (7+4+3+9) - (1+5+4+2)$

$= 23 - 12 \Rightarrow 11$, is divisible by 11.

Ex. 48327184 → yes

57463822 → No

Ex. Is 5256374 divisible by 24?

method 1. divisibility of 6 & 4.

method 2 divisibility of 8 & 3

method 3 divisibility of 2, 3, & 4.

Ex: 1320 → yes

36 → No .