07/01/2025

DAY - 9

1 **Divisibility 3:**

Find the value of x if the number $56x21$ is exactly divisible by 3

Rule:

Sum of the number divisble by 3, It s rule

$5+6+2+1 \equiv 14/3$ It not divisble by 3

Sum of digit $= 14 + x$

Neorest number of 3 is 18

$$x = 18 - 14$$

$$\boxed{x = 4}$$

It is divisibility by 3

$56421 = 18/3$

It is divisibility by 3

2. Divisibility by 9:

If the number $7254x8$ is divisible by 9, what is the value of the digit x?

$7+2+5+4+8 = 26/9$, It not divisility by 9

Nearest number of 9 is 27

$$x = -26 + 27$$

$$\boxed{x = 1}$$

$7+2+1+5+4+8 = 27/9$, It is divisibility by 9.

3. Divisibility by 4:

which of the following number is divisible by 4?

a) 54,322

b) 12,459

c) 24,516

12,458

↳ 58/4

It is divisibility by 4

so, that bs is correct.

4. Divisibility by 8:

Find the smallest value of y so that the number 9125y6 is divisible by 8.

∴ 5y6 /8

536/8

$\boxed{y = 3}$

It is divisibility by 8

5. Divisibility by 11:

Find the value of k if the number 8k452 is divisible by 11.

8 k 4 5 2 ⟹ 14 − (k + 5) = 0

① ② ③ ④ ⑤

14 − 5 + k = 0

9 + k = 0

$\boxed{k = 9}$

The value of k is 9.

89452 is divisibility by 11.

6. Divisibility by 6:

check if the number 24,672 is divisible by 6

24672 → 2, It is divisibility by 2

24672 → 2+4+6+7+2 = 21/3, It is divisibility by 3

so, that It is divisibility by 6.