

## 8. Divisibility

- A number is divisible by 3, if the sum of its digits is divisible by 3.

For example, 231456 is divisible by 3, since  $2 + 3 + 1 + 4 + 5 + 6 = 21$  is divisible by 3.

- A number is divisible by 9, if the sum of its digits is divisible by 9.

For example, 253674 is divisible by 9, since  $2 + 5 + 3 + 6 + 7 + 4 = 27$  is divisible by 9.

- A number which is divisible by 9 is also divisible by 3.

For example, in 252, the sum of its digits is 9, which is divisible by 3 and 9 both.

- A number is divisible by 2, if the digit in one's place is either 0, 2, 4, 6, or 8.

For example, the numbers 9218, 6054, 932 are divisible by 2.

- A number with two or more digits is divisible by 4, if the number formed by its last two digits (one's and ten's) is either 00 or divisible by 4.

For example, the last two digits of 9584 is 84, which is divisible by 4. So, 9584 is divisible by 4.

- A number with three or more digits is divisible by 8, if the number formed by its last three digits (one's, ten's and hundred's) is either 000 or divisible by 8.

For example, the last three digits of 9368 is 368, which is divisible by 8. So, 9368 is divisible by 8.

