Playing with Numbers Ex 2.5 Q5

Answer :

Rule: A number is divisible by 8 if the number formed by its last three digits is divisible by 8.

(i) The given number = 8364
The number formed by its last three digit is 364 which is not divisible by 8.
Therefore, 8,364 is not divisible by 8.

(ii) The given number = 7314
The number formed by its last three digit is 314 which is not divisible by 8.
Therefore, 7,314 is not divisible by 8.

(iii) The given number = 36712
Since the number formed by its last three digit = 712 which is divisible by 8.
Therefore, 36,712 is divisible by 8.

Playing with Numbers Ex 2.5 Q6

Answer :

Rule: A number is divisible by 9 if the sum of its digits is divisible by 9.

(i) The given number = 187245
The sum of the digits in the given number = 1 + 8 + 7 + 2 + 4 + 5 = 27 which is divisible by 9.
Therefore, 1,87,245 is divisible by 9.

(ii) The given number = 3478
The sum of the digits in the given number = 3 + 4 + 7 + 8 = 22 which is not divisible by 9.
Therefore, 3,478 is not divisible by 9.

(iii) The given number = 547218
The sum of the digits in the given number = 5 + 4 + 7 + 2 + 1 + 8 = 27 which is divisible by 9.
Therefore, 5,47,218 is divisible by 9.

Playing with Numbers Ex 2.5 Q7

Answer :

(i) The given number is 5,335.
The sum of the digit at the odd places = 5 + 3 = 8
The sum of the digits at the even places = 3 + 5 = 8
Their difference = 8 − 8 = 0
∴ 5,335 is divisible by 11.

(ii) The given number is 7,01,69,803.
The sum of the digit at the odd places = 7 + 1 + 9 + 0 = 17
The sum of the digits at the even places = 0 + 6 + 8 + 3 = 17
Their difference = 17 − 17 = 0
∴ 7,01,69,803 is divisible by 11.

(iii) The given number is 1,00,00,001.
The sum of the digit at the odd places = 1 + 0 + 0 + 0 = 1
The sum of the digits at the even places = 0 + 0 + 0 + 1 = 1
Their difference = 1 − 1 = 0
∴ 1,00,00,001 is divisible by 11.

Playing with Numbers Ex 2.5 Q8

Answer :

We can replace the * by the smallest number to make the given numbers divisible by 3 as follows:
(i) 75*5 = 7515
As 7 + 5 + 1 + 5 = 18, it is divisible by 3.
(ii) 35*64 = 35064
As 3 + 5 +6 + 4 = 18, it is divisible by 3.
(iii) 18*71 = 18171
As 1 + 8 + 1 + 7 + 1 = 18, it is divisible by 3.

********** END **********