Playing with Numbers Ex 2.5 Q1

Answer :

Rule: A natural number is divisible by 2 if its unit digit is 0, 2, 4, 6, or 8.

(i) Here, the unit's digit = 0
Thus, the given number is divisible by 2.

(ii) Here, the unit's digit = 5
Thus, the given number is not divisible by 2.

(iii) Here, the unit's digit = 4
Thus, the given number is divisible by 2.

Playing with Numbers Ex 2.5 Q2

Answer :

Rule: A number is divisible by 3 if the sum of its digits is divisible by 3.

(i) Here, the sum of the digits in the given number = 7 + 0 + 3 + 3 + 5 = 18 which is divisible by 3.
Thus, 70,335 is divisible by 3.

(ii) Here, the sum of the digits in the given number = 6 + 0 + 7 + 4 + 3 + 9 = 29 which is not divisible by 3.
Thus, 6,07,439 is not divisible by 3.

(iii) Here, the sum of the digits in the given number = 9 + 0 + 8 + 2 + 7 + 4 + 6 = 36 which is divisible by 3.
Thus, 90,82,746 is divisible by 3.

Playing with Numbers Ex 2.5 Q3

Answer :

Rule: A number is divisible by 6 if it is divisible by 2 as well as 3.

(i) Here, the unit's digit = 0
Thus, the given number is divisible by 2.
Also, the sum of the digits = 7 + 0 + 2 + 0 = 9 which is divisible by 3. So, the given number is divisible by 3.
Hence, 7,020 is divisible by 6.

(ii) Here, the unit's digit = 3
Thus, the given number is not divisible by 2.
Also, the sum of the digits = 5 + 6 + 4 + 2 + 3 = 20 which is not divisible by 3. So, the given number is not divisible by 3.
Since 3,56,423 is neither divisible by 2 nor by 3, it is not divisible by 6.

(iii) Here, the unit's digit = 0
Thus, the given number is divisible by 2.
Also, the sum of the digits = 7 + 3 + 2 + 5 + 1 + 0 = 18 which is divisible by 3. So, the given number is divisible by 3.
Hence, 7,32,510 is divisible by 6.

Playing with Numbers Ex 2.5 Q4

Answer :

Rule: A natural number is divisible by 4 if the number formed by its last two digits is divisible by 4.

(i) Here, the number formed by the last two digits is 32 which is divisible by 4.
Thus, 7,86,532 is divisible by 4.

(ii) Here, the number formed by the last two digits is 31 which is not divisible by 4.
Thus, 10,20,531 is not divisible by 4.

(iii) Here, the number formed by the last two digits is 23 which is not divisible by 4.
Thus, 98,01,523 is not divisible by 4.

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