

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 = 5Thus, 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.

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