P.6 WORKHOLIDAY STUDY

NUMBER PATTERNS AND SEQUENCE

DIVISIBILITY TESTS

a) Divisibility by 2

A number is exactly divisible by 2 when it ends with an even digit i.e. it should end with 0, 2, 4, 6 or 8.

Examples

1. Which of the following numbers is exactly divisible by 2.

a) 65, 78, 101

Solution

78 is exactly divisible by 2 because it ends with an even digit/number

65 and 101 are not exactly divisible by 2 because they do not end with an even number.

Exercise 1

1.Is the number 246 divisible by 2?

2. Which number below are exactly divisible by 2?

a) 100, b) 514, c) 309, d) 768, e) 91

3. Which of the 3 numbers 96, 783, 1001 is exactly divisible by 2?

4. What is the only number in the set below which is divisible by 2?

{945, 736, 119, 429}

5. Is 5,554 exactly divisible by 2?

Divisibility test of 3

A number is exactly divisible by 3 when the sum of its digits is a multiple of 3.

Examples

1.State whether the following numbers are exactly divisible by 3.

a) 144

Solution

144 = [(1+4) +4]

= 5+4

= 9

Therefore 144 is exactly divisible by 3 because the sum of its digits is a multiple of 3.

b) 3323

Solution

3323 = (3+3) + (2+3)

= 6+5

=11

Therefore 3323 is not exactly divisible by 3 because the sum of its digits is not a multiple of 3

Exercise 2.

1. Which of the two numbers 522 and 713 are divisible by 3
2. Is the number 111 exactly divisible by 3?
3. Are all the numbers 100, 514, 309 and 768 divisible by 3?
4. What is the only number in the set below is divisibility by 3?
   {736, 118, 429, 946}
5. True or false. Is the number 5,564 exactly divisible by 3?