**Class Task**

1. Write a program to print all numbers from 1 to 100 i.e. 1 2 3 4 5 6 7 . . . 98 99 100
2. Write a program to print alternate numbers starting from 1 to 99 i.e. 1 3 5 7 9 11 13 . . . 95 97 99
3. Write a program to print alternate numbers starting from 0 to 100 i.e. 0 2 4 6 8 10 12 . . . 96 98 100
4. Write a program to print all numbers backwards from 100 to 0 i.e. 100 99 98 97 96 . . . 4 3 2 1 0
5. Write a program to print numbers backwards from 100 to 1 by skipping 2 numbers i.e. 100 97 94 91 88 85 82 79. . . 22 19 16 13 10 7 4 1

**Homework Task**

Q1. Write a java program to print number from -5 to 5

-5

-4

-3

-2

-1

0

1

2

3

4

5

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Q2. Write a java program to print number from 100 to 91

100

99

98

97

96

95

94

93

92

91

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Q3. Write a program to print alternate number from 80 To 70.

80

skip

78

skip

76

skip

74

skip

72

skip

70

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Q4. Write a program to print Sqaure of Even number from 10 To 20

10 Square is : 100

12 Square is : 144

14 Square is : 196

16 Square is : 256

18 Square is : 324

20 Square is : 400

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Q5. Write a program to print cube of odd number from 1 to 10.

Cube of 1 = 1

Cube of 3 = 27

Cube of 5 = 125

Cube of 7 = 343

Cube of 9 = 729

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Q6. An Abundant number is a number for which the sum of its proper factors is greater than the number itself. Write a program to input a number and check and print whether it is an Abundant number or not.

Example:

Consider the number 12.

Factors of 12 = 1, 2, 3, 4, 6 Sum of factors = 1 + 2 + 3 + 4 + 6 = 16

As 16 > 12 so 12 is an Abundant number.

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Q7. Write a program to input a number. Check and display whether it is a Niven number or not. (A number is said to be Niven which is divisible by the sum of its digits).

Example: Sample Input 126

Sum of its digits = 1 + 2 + 6 = 9 and 126 is divisible by 9.

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Q8. Write a program to accept a number and check whether it is a 'Spy Number' or not. (A number is spy if the sum of its digits equals the product of its digits.)

Example: Sample Input: 1124

Sum of the digits = 1 + 1 + 2 + 4 = 8

Product of the digits = 1\*1\*2\*4 = 8

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Q9. A special two-digit number is such that when the sum of its digits is added to the product of its digits, the result is equal to the original two-digit number.

Example: Consider the number 59.

Sum of digits = 5 + 9 = 14

Product of digits = 5 \* 9 = 45

Sum of the sum of digits and product of digits = 14 + 45 = 59

Write a program to accept a two-digit number. Add the sum of its digits to the product of its digits. If the value is equal to the number input, then display the message "Special two—digit number" otherwise, display the message "Not a special two-digit number".

Q5. A number is said to be Duck if the digit zero is (0) present in it. Write a program to accept a number and check whether the number is Duck or not. The program displays the message accordingly. (The number must not begin with zero)

Sample Input: 5063

Sample Output: It is a Duck number.