C

FUNDAMENTALS

Test – CC100

**Topics –
Operators, If else,
switch
and
for loops**

Question 1 |

Give the output of the following code:

a)
```
if(true && false && true || false)
    System.out.println("True.");
else
    System.out.println("False");
```

b)
```
int ok=10;
switch(ok)
{
   default:
      System.out.println("default");
   case 0:
      System.out.println("true");
   case 1:
      System.out.println("false");
}
```

Question 2 |

Write a program to check whether an alphabet is vowel or consonant using switch case.

Example:

Input:
Enter an alphabet: A
Output:
A is a Vowel

Input:
Enter an alphabet: b
Output:
b is a Consonant

Question 3 |

Write a program to check whether a number is Prime number or not.

Definition: Prime numbers are the positive integers having only two factors, 1 and the integer itself.

Example:

Input:
Enter a number: 29
Output:
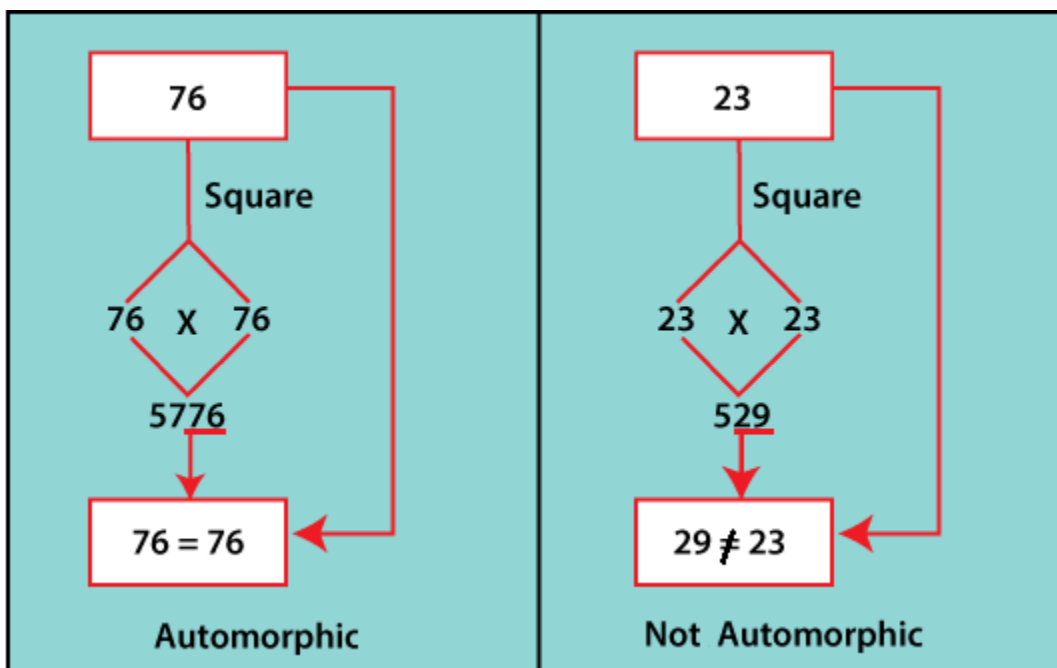29 is a Prime Number

Input:
Enter a number: 9
Output:
9 is NOT a Prime Number

Question 4 |

Write a program to check whether a number is Automorphic number or not.

Definition: A number is called an automorphic number if and only if the square of the given number ends with the same number itself.

76 → Square → 76 X 76 → 5776 → 76 = 76 → **Automorphic**

23 → Square → 23 X 23 → 529 → 29 ≠ 23 → **Not Automorphic**

Example:

Input:
Enter a number: 76
Output:
76 is an Automorphic Number

Question 5 |

Write a program to check whether sum of digits of the square of the number is equal to the number. If yes, print "Correct Number" else print "Incorrect Number".

Example:

Number to check: 9
Square of a given number: 9 * 9 = 81
Sum of digits of square number: 8 + 1 = 9 // Correct Number

Number to check: 8
Square of a given number: 8 * 8 = 64
Sum of digits of square number: 6 + 4 = 10 // Incorrect Number

Question 6 |

Print the following pattern using loops.

Pattern –

```
*
**
***
****
******
```

Question 7 |

Print the pattern using loops depending on user input.

Example:

Input:
Enter a number: 2
Output:
1

1
2

Input:
Enter a number: 4
Output:
1

1
2

1
2
3

1
2
3
4

Thankyou
Hope so you did your best