(Q1) Explain the need for continue & break statement, write a program to check weather a number is prime or not. Describe the is & is not operators & type() function. Also discuss why python is called a dynamic & strongly typed language.

Soln The continue statement can appear only in loops. You will get an error if this appears in switch statement. When a break statement is encountered, it terminates the block & gets the control out of the switch or loop. When a continue statement is encountered, it gets the control to the next iteration of the loop.

Program to check no. is prime or not.

```
num = int(input("Enter a number"))
if num > 1:
    for i in range(2, num):
        if (num % i) == 0:
            Print(num, "is not a prime number")
            Print(i, "times", num // i, "is" num)
            break
        else:
            Print(nume, "is a prime number")
else:
    Print(num, "is not a prime number")
```

Python is strongly typed as the interpreter keeps track of all variable types, It's also very dynamic as it rarely use what it knows to limit variable usage. In python, it's the program's responsibility to use built in function like instance() an issubclass() to test variable type & correct usage.