Question Number 6

The **Atbash** Cipher consists of replacing plaintext letters A, B, C to Z by the ciphertext letters Z, Y, X to A, respectively.

- Decrypt 'XZKVIXZROORV.'
- How would you describe the relationship between the Atbash Cipher and the Simple Substitution Cipher?

Solution.

To decrypt the Atbash Cipher, we use the following Python code:

```
def decrypt(cipher):
    mssge = ""
    for i in cipher:
        if i.isalpha():
            if i.islower():
                mssge += chr(122-ord(i)+97)
            else:
                mssge += chr(90-ord(i)+65)
        else:
            mssge += i
    return mssge

print(decrypt("XZKVIXZROORV"))

```

Running the above code produces the decrypted text:

```
CAPERICAILLE
```

The Atbash Cipher is a special case of the Simple Substitution Cipher where the substitution is symmetric and involves reversing the alphabet.