Output:

7. Consider a function f(X) = X3. Input is 'N' list. Each list contains 'M' elements. From the list, find the maximum element. Compute: S =(f(X1) + f(X2) + f(X3) + … + f(XN)) Modulo Z

```
[ ] #7.Consider a function f(X) = X3. Input is 'N' list. Each list contains 'M' elements. From the list, find
    #4the maximum element. Compute
    def f(x):
        return x**3
    N=int(input("Enter N:"))
    M=int(input("Enter M:"))
    l=[]
    mx=[]
    for i in range(N):
       for j in range(M):
          l.append(int(input("enter elements:")))
    mx.append(max(l))
    l=[]
    Z=int(input("Enter Z:"))
    s=0
    for i in mx:
      3
      s+=f(i)
    print(s%Z)
```

```
Enter N:2
Enter M:4
enter elements:7
enter elements:2
enter elements:8
enter elements:2
enter elements:9
enter elements:1
enter elements:9
enter elements:3
Enter Z:8
1
```

8. Validate the Credit numbers based on the following conditions:
Begins with 4,5, or 6
Contain exactly 16 digits
Contains only numbers (0 to 9)
For every 4 digits a hyphen (-) may be included (not mandatory). No other special character permitted.
Must not have 4 or more consecutive same digits.

```
[ ] #8.Validate the Credit numbers based on the following
    import re
    import itertools
    text="5133-3367-8912-3456"
    print(len(text))
    l=[(k,sum(1 for i in g)) for k,g in itertools.groupby(text)]
    if re.search(r'^[456]+',text) and len(text)==16 and re.search(r'[\d]',text) and all(v<=3 for k,v in l) and bool(re.search(r'\s',text)) is False and bool(re.search(r'[a-z]',text))is False or(bool(re.search(r'-',text))is True and len(text)==19):
            print("it passed")
    else:
      print("False")
```

```
19
it passed
```