#1

```
def reverse_string(s):
    if len(s)<=1:
        return s
    return reverse_string(s[1:])+s[0]
s=input("Enter a string to reverse it: ")
reversed_string=reverse_string(s)
print(reversed_string)
```

#2

```
def is_palindrome(s):
    if len(s)<=1:
        return True
    if s[0]!=s[-1]:
        return False
    return is_palindrome(s[1:-1])
s=input("Enter a string to check palindrome: ")
result=is_palindrome(s)
print(result)
```

#3

```
def power(x,n):
    if n==0:
        return 1
    return x*power(x,n-1)
x=int(input())
n=int(input())
result=power(x,n)
print(f'{x}^{n}={result}')
```

#4

```
def sum_of_digits(n):
    if n==0:
        return 0
    return n%10+sum_of_digits(n//10)
n=int(input())
result=sum_of_digits(n)
print(result)



#5
n=int(input())
arr=[]
for i in range(n):
    l=list(map(int,input().split()))
    arr.append(l)
tot=0
for row in arr:
    for column in row:
        tot+=column
print(tot)

#6
n=int(input())
arr=[]
for i in range(n):
    l=list(map(int,input().split()))
    arr.append(l)
for i in range(n):
    for j in range(n):
        print(arr[i][j],end=" ")
    print()
```

```
print("Transpose matrix is:")
for j in range(n):
    for i in range(n):
        print(arr[i][j],end=" ")
    print()
```