

Recursive function

- 1) Write a program where the recursive function calculates the sum of N numbers

#Command in terminal

```
gedit sum.sh
chmod +x sum.sh
./sum.sh
```

#command in shell script

```
#!/usr/bin/env bash
function rec()
{
sum=$(( $sum+$n ))
if [ $n -gt 0 ];
then
    n=$(( $n -1 ))
    rec $n
else
    echo "$sum"
fi
}
sum=0
read -p "Enter the number: " n
if [ $n -gt 0 ];
then
    rec $n
else
    echo "The entered number is 0"
fi
```

Machine View

Activities Terminal Okt 5 06:27

onworks@onworks-Standard-PC-l440FX-PIIX-1996: ~

```
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~$ gedit sum.sh
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~$ chmod +x sum.sh
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~$ ./sum.sh
Enter the number: 4
10
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~$ ./sum.sh
Enter the number: 10
55
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~$ ./sum.sh
Enter the number: 0
The entered number is 0
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~$
```

Machine View

Activities Text Editor Okt 5 06:28

sum.sh

```
1#!/usr/bin/env bash
2function rec()
3{
4    sum=$((sum+$n))
5    if [ $n -gt 0 ];
6    then
7        n=$((n - 1 ))
8        rec $n
9    else
10        echo "$sum"
11    fi
12}
13
14sum=0
15read -p "Enter the number: " n
16if [ $n -gt 0 ];
17then
18    rec $n
19else
20    echo "The entered number is 0"
21fi
```