Code-Write Shell Programs to

- **Add 2 numbers**
```
echo enter a
read a
echo enter b
read b
echo "Addition of $((a)) and $((b)) is : $((a+b))"
```

OUTPUT:
```
student@LAB302PC34:~/Desktop/Niyati$ sh Add_nos.sh
enter a
5
enter b
6
Addition of 5 and 6 is : 11
```

- **Check if a number entered is even and odd**
```
echo enter a
read a
if [ $(($a % 2)) -eq 0 ];
then
echo a is even
else
echo a is odd
fi
```

OUTPUT:
```
student@LAB302PC34:~/Desktop/Niyati$ sh Even_odd.sh
enter a
7
a is odd
student@LAB302PC34:~/Desktop/Niyati$ sh Even_odd.sh
enter a
2
a is even
```

- **Find sum of n numbers**
```
a=1
echo "Enter n"
read n
sum=0
while [ $a -le $n ]
do
 sum=$((sum+a))
 a=$((a+1))
done
echo "Sum is $((sum))"
```

OUTPUT:
student@LAB302PC34:~/Desktop/Niyati$ sh Sum.sh
Enter n
5
Sum is 15

- **Determine if a person is eligible to vote or not**
  echo "Enter your age"
  read a
  if [" $a" -lt 20];
  then
    echo "You are NOT eligible for voting"
  else
    echo "You are eligible for voting"
  fi

  OUTPUT:
  student@LAB302PC34:~/Desktop/Niyati$ sh Vote.sh
  Enter your age
  45
  You are eligible for voting
  student@LAB302PC34:~/Desktop/Niyati$ sh Vote.sh
  Enter your age
  12
  You are NOT eligible for voting

- **Find Factorial of a number**
  echo "Enter a number"
  read n
  f=1
  for((i=1;i<=n;i++))
  do
    f=$((f*i))
  done
  echo "Factorial of $((n)) is $((f))"

  OUTPUT:
  student@LAB302PC34:~/Desktop/Niyati$ bash Fact.sh
  Enter a number
  5
  Factorial of 5 is 120
  student@LAB302PC34:~/Desktop/Niyati$ bash Fact.sh
  Enter a number
  8
  Factorial of 8 is 40320

- **Check validity of a username and password with a function defined in the code**

```
function validity
{
echo "Enter username"
read username
echo "Enter password"
read password

if [[ $username == "Niyati" && $password == "collegepc" ]];
then
echo "Valid User"
else
echo "Credentials do not match"
fi
}

validity
```

```
OUTPUT:
lab-1003@lab1003-OptiPlex-390:~/Desktop/Niyati$ bash Validity.sh
Enter username
bcc
Enter password
vcv
Credentials do not match
lab-1003@lab1003-OptiPlex-390:~/Desktop/Niyati$ bash Validity.sh
Enter username
Niyati
Enter password
collegepc
Valid User
```