

---

```
#shell program to find odd or even number
#!/bin/bash
echo "Enter the number: "
read n
if(($n%2 == 0))
then
echo "$n is even"
else
echo "$n is odd"
fi
```

#### OUTPUT

```
alwin@debian:~$ chmod u+x 2a_oddeven.sh
alwin@debian:~$ ./2a_oddeven.sh
Enter the number:
5
5 is odd
```

---

```
#shell program to find the factorial of a number using for loop
#!/bin/bash
echo "Enter the number: "
read num
fact=1
for((i=1;i<=num;i++))
do
((fact=fact*i))
done
echo "Factorial of $num is $fact"
```

#### OUTPUT

```
alwin@debian:~$ chmod u+x 2c_fact.sh
alwin@debian:~$ ./2c_fact.sh
Enter the number:
5
Factorial of 5 is 120
```

---

```
#shell program to implement a basic calculator.
#!/bin/bash
echo "Enter the two number: "
read a
read b
echo "Enter choice: "
echo "1.ADD"
echo "2.SUBSTRACT"
echo "3.MULTIPLY"
echo "4.DIVIDE"
read ch
case $ch in
1)((res=a+b))
echo "SUM: $res";;
2)((res=a-b))
echo "DIFFERENCE: $res";;
3)((res=a*b))
echo "MULTIPLY: $res";;
4)((res=a/b))
echo "DIVISION: $res";;
*)
echo "INVALID CHOICE";;
esac
```

OUTPUT

```
alwin@debian:~$ chmod u+x 2e_cal.sh
```

```
alwin@debian:~$ ./2e_cal.sh
```

Enter the two number:

5

2

Enter choice:

1.ADD

2.SUBSTRACT

3.MULTIPLY

4.DIVIDE

3

MULTIPLY: 10

#shell script to check whether a given number is prime or not

```
#!/bin/bash
```

```
echo "Enter the number: "
```

```
read num
```

```
flag=1
```

```
for((i=2;i<num/2;i++))
```

```
do
```

```
if((num%i==0))
```

```
then
```

```
flag=0
```

```
fi
```

```
done
```

```
if((flag==0))
```

```
then
```

```
echo "Not prime"
```

```
else
```

```
echo "Prime"
```

```
fi
```

OUTPUT

```
alwin@debian:~$ chmod u+x 2j_prime.sh
```

```
alwin@debian:~$ ./2j_prime.sh
```

Enter the number:

5

Prime

#Write a shell script to do the following in order:

#i. Check whether a directory by the name "bash" exist

#ii. If not create one.

#iii. List all the directories.

```
#!/bin/bash
```

```
if [ -d "bash" ]; then
```

```
    echo "Directory 'bash' exists."
```

```
else
```

```
    mkdir "bash"
```

```
    echo "Directory 'bash' created."
```

```
fi
```

```
echo "Listing all directories:"
```

```
ls -d */
```

OUTPUT

```
alwin@debian:~$ chmod u+x 2o_directory.sh
```

```
alwin@debian:~$ ./2o_directory.sh
```

Directory 'bash' created.

Listing all directories:

bash/ Documents/ Music/ Public/ Videos/

Desktop/ Downloads/ Pictures/ Templates/