1) Shell script to check number of lines, words, characters in a file. nano f1.sh

```
#! /bin/bash
echo "Enter file name"
read f
echo "no of lines:"
wc -l $f
echo "no of words"
wc -w $f
echo "no of char"
wc -c $f
```

Output: chmod a+x f1.sh
                              sh f1.sh
Enter filename :
    f2.sh
No of lines:
    2   f2.sh
No of words:
    2   f2.sh
No of char:
    9   f2.sh

2) Write a shell script to accept n numbers from the user. Display the count and sum of positive numbers and negative numbers separately:

```
#!/bin/bash
echo "Enter the no of elements:"
read n
possum = 0
negsum = 0
t = 0
poscnt = 0
negcnt = 0
while [ $t -lt $n ]
do
    echo "Enter:"
    read ele
    if [$ele -gt 0]
    then
        poscnt = $(( $poscnt + 1))
        possum = $(( $possum + $ele ))
```

Output:
Enter the no of eleme-
nts : 4
Enter : 1
Enter : 2
Enter : 4
Enter : -6

The positive count is : 2
The negative count is : 2
The sum of positive
numbers is : 5
The sum of negative
numbers is : -8

```bash
elif [ $ele -lt 0 ]
    then
    negcnt = $(( $negcnt + 1))
    negsum = $(( $negsum + $ele ))
fi
t = $(( $t+1))

done
echo "The positive count is: $poscnt"
echo "The negative count is: $negcnt"
echo "The sum of positive numbers is:
                                $possum"

echo "The sum of negative numbers is:
                                $negsum"
```

3) Write a shell script to find the sum of last
   two prime numbers that occurs before
   the entered number

```bash
#!/bin/bash
echo "Enter a number"
read n
echo "Previous 2 Prime numbers of $n are:"

c = 0
for (( N = $n-1 ; N > 1 ; N-- ))
    do
    f = 0
    for (( j=1 ; j<= $N ; j++ ))
    do
        if [ $(( $N % j )) -eq 0 ]
        then
            f = $(( $f + 1))
        fi
    done
    if [ $f -eq 2 ] && [ $c -lt 2 ]
    then
        echo $N
        c = $(( $c + 1))
    fi
done
```

Output: Enter a number : 8
        prime number : 7 5
        Sum = 12

4) Write a shell script to print the following pattern

```
      *
    * * *
  * * * * *
* * * * * * *
  * * * * *
    * * *
      *
```

```bash
#!/bin/bash
for ((i=1 ; i<6 ; i++))
d
    for ((j=1 ; j<= 6-i ; j++))
    d
        echo -n " "
    }
    for ((j=1; j<= i*2-1; j++))
    d
        echo -n "*";
    }
    echo " "
}
for ((i=4 ; i>0 ; i--))
d
    for ((j=1 ; j< =6- i ; j++))
    d
        echo -n " "
    }
    for ((j=1 ; j< = i*2-1 ; j++))
    d
        echo -n "*";
    }
    echo " "
}
```