Q15

```
dbda@IACSD:~/Desktop/linux_assignment$ nano odd.sh
dbda@IACSD:~/Desktop/linux_assignment$ ./odd.sh
Input number of terms : 10
The odd numbers are :1 3 5 7 9 11 13 15 17 19 The Sum of odd Natural Numbers upto 10 : 100
dbda@IACSD:~/Desktop/linux_assignment$ nano odd.sh
dbda@IACSD:~/Desktop/linux_assignment$ ./odd.sh
Input number of terms : 10
The odd numbers are :1 3 5 7 9 11 13 15 17 19
The Sum of odd Natural Numbers upto 10 : 100
dbda@IACSD:~/Desktop/linux_assignment$ ./odd.sh
Input number of terms : 2
The odd numbers are :1 3
The Sum of odd Natural Numbers upto 2 : 4
dbda@IACSD:~/Desktop/linux_assignment$ ./odd.sh
Input number of terms : 3
The odd numbers are :1 3 5
The Sum of odd Natural Numbers upto 3 : 9
dbda@IACSD:~/Desktop/linux_assignment$
```

GNU nano 6.2 odd.sh

```
read -p "Input number of terms : " n
m=` echo "$n * 2" | bc `
echo -n "The odd numbers are :"
for((a=1;a<=m;a+=2))
do
        echo -n "$a "
done

m=` echo "$n * $n" | bc `
echo -e "\nThe Sum of odd Natural Numbers upto $n : $m"
```

Q14

```
dbda@IACSD:~/Desktop/linux_assignment$ ./table.sh
Input upto the table number starting from 1 : 10
1 X 1 = 1,2 X 1 = 2,3 X 1 = 3,4 X 1 = 4,5 X 1 = 5,6 X 1 = 6,7 X 1 = 7,8 X 1 = 8,9 X 1 = 9,10 X 1 = 10,
1 X 2 = 2,2 X 2 = 4,3 X 2 = 6,4 X 2 = 8,5 X 2 = 10,6 X 2 = 12,7 X 2 = 14,8 X 2 = 16,9 X 2 = 18,10 X 2 = 20,
1 X 3 = 3,2 X 3 = 6,3 X 3 = 9,4 X 3 = 12,5 X 3 = 15,6 X 3 = 18,7 X 3 = 21,8 X 3 = 24,9 X 3 = 27,10 X 3 = 30,
1 X 4 = 4,2 X 4 = 8,3 X 4 = 12,4 X 4 = 16,5 X 4 = 20,6 X 4 = 24,7 X 4 = 28,8 X 4 = 32,9 X 4 = 36,10 X 4 = 40,
1 X 5 = 5,2 X 5 = 10,3 X 5 = 15,4 X 5 = 20,5 X 5 = 25,6 X 5 = 30,7 X 5 = 35,8 X 5 = 40,9 X 5 = 45,10 X 5 = 50,
1 X 6 = 6,2 X 6 = 12,3 X 6 = 18,4 X 6 = 24,5 X 6 = 30,6 X 6 = 36,7 X 6 = 42,8 X 6 = 48,9 X 6 = 54,10 X 6 = 60,
1 X 7 = 7,2 X 7 = 14,3 X 7 = 21,4 X 7 = 28,5 X 7 = 35,6 X 7 = 42,7 X 7 = 49,8 X 7 = 56,9 X 7 = 63,10 X 7 = 70,
1 X 8 = 8,2 X 8 = 16,3 X 8 = 24,4 X 8 = 32,5 X 8 = 40,6 X 8 = 48,7 X 8 = 56,8 X 8 = 64,9 X 8 = 72,10 X 8 = 80,
1 X 9 = 9,2 X 9 = 18,3 X 9 = 27,4 X 9 = 36,5 X 9 = 45,6 X 9 = 54,7 X 9 = 63,8 X 9 = 72,9 X 9 = 81,10 X 9 = 90,
1 X 10 = 10,2 X 10 = 20,3 X 10 = 30,4 X 10 = 40,5 X 10 = 50,6 X 10 = 60,7 X 10 = 70,8 X 10 = 80,9 X 10 = 90,10 X 10 = 100,
dbda@IACSD:~/Desktop/linux_assignment$
```

GNU nano 6.2 table.sh

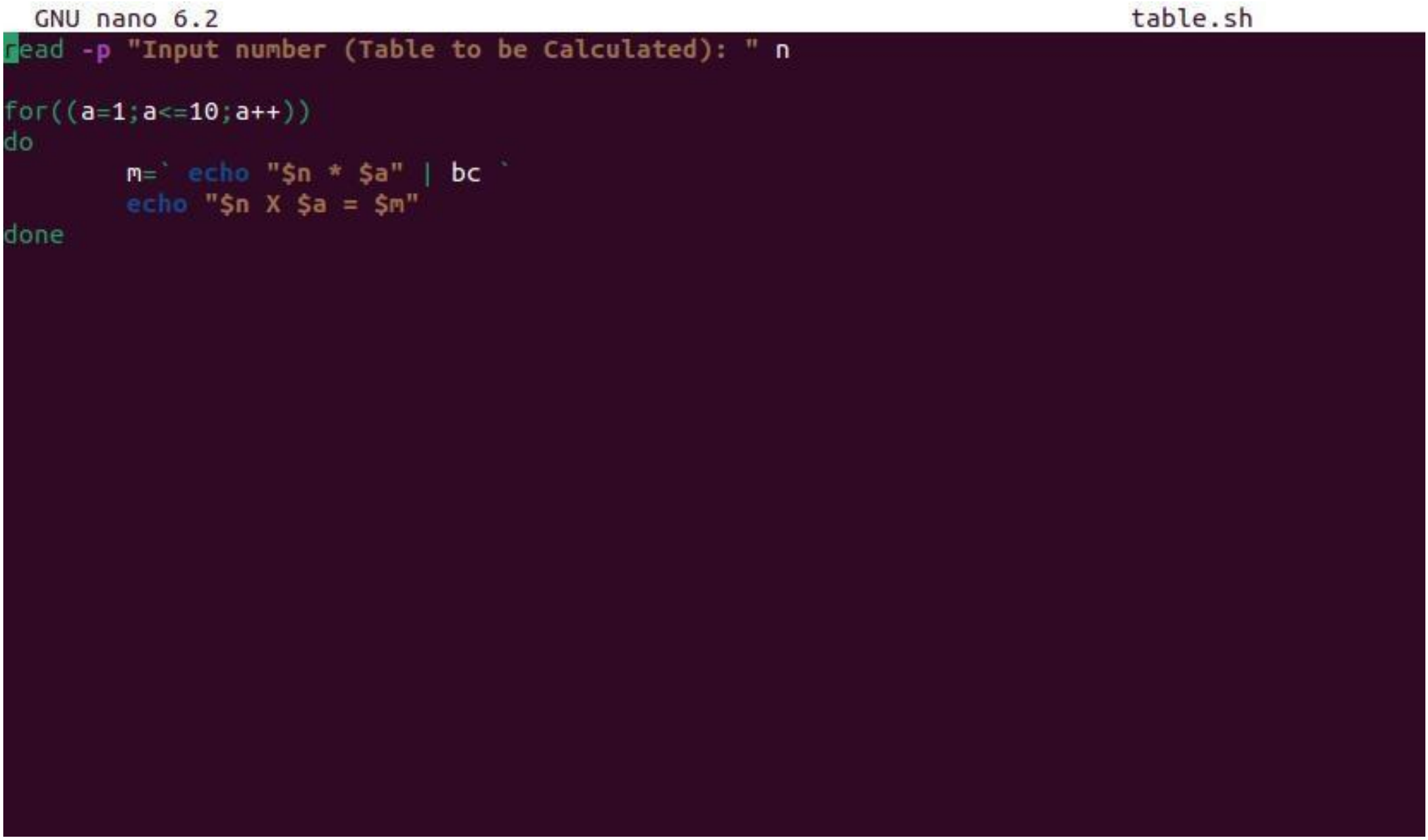
```
read -p "Input upto the table number starting from 1 : " n

for((a=1;a<=n;a++))
do
        for((b=1;b<=10;b++))
        do
                m=` echo "$a * $b" | bc `
                echo -n "$b X $a = $m,"
        done
        echo " "

done
```

Q13

```
dbda@IACSD:~/Desktop/linux_assignment$ ./table.sh
Input number (Table to be Calculated): 17
17 X 1 = 17
17 X 2 = 34
17 X 3 = 51
17 X 4 = 68
17 X 5 = 85
17 X 6 = 102
17 X 7 = 119
17 X 8 = 136
17 X 9 = 153
17 X 10 = 170
dbda@IACSD:~/Desktop/linux_assignment$ ./table.sh
Input number (Table to be Calculated): 16
16 X 1 = 16
16 X 2 = 32
16 X 3 = 48
16 X 4 = 64
16 X 5 = 80
16 X 6 = 96
16 X 7 = 112
16 X 8 = 128
16 X 9 = 144
16 X 10 = 160
dbda@IACSD:~/Desktop/linux_assignment$
```


GNU nano 6.2 table.sh
read -p "Input number (Table to be Calculated): " n
for((a=1;a<=10;a++))
do
m=` echo "$n * $a" | bc `
echo "$n X $a = $m"
done

Q12

```
dbda@IACSD:~/Desktop/linux_assignment$ ./cube.sh
Input number of terms : 6
Number is : 1 and cube of the 1 is : 1
Number is : 2 and cube of the 2 is : 8
Number is : 3 and cube of the 3 is : 27
Number is : 4 and cube of the 4 is : 64
Number is : 5 and cube of the 5 is : 125
Number is : 6 and cube of the 6 is : 216
dbda@IACSD:~/Desktop/linux_assignment$
```

```
 GNU nano 6.2                                                    cube.sh
read -p "Input number of terms : " n

for((a=1;a<=$n;a++))
do
        m=` echo "$a * $a * $a" | bc `
        echo "Number is : $a and cube of the $a is : $m"
done
```

Q11

```
dbda@IACSD:~/Desktop/linux_assignment$ ./sum_avg.sh
Number-1 :23
Number-2 :2
Number-3 :45
Number-4 :3
Number-5 :9
Number-6 :0
Number-7 :11
Number-8 :12
Number-9 :43
Number-10 :6
The Sum of 10 no is : 154
The Average is : 15.40000
dbda@IACSD:~/Desktop/linux_assignment$
```

```
  GNU nano 6.2                                                  sum_avg.sh *
k=0
for a in {1..10}
do
        read -p "Number-$a :" n
        k=` expr $k + $n `
done

echo "The Sum of 10 no is : $k"
m=` echo "scale=5; $k / $a" | bc `
echo "The Average is : $m"
```

Q10

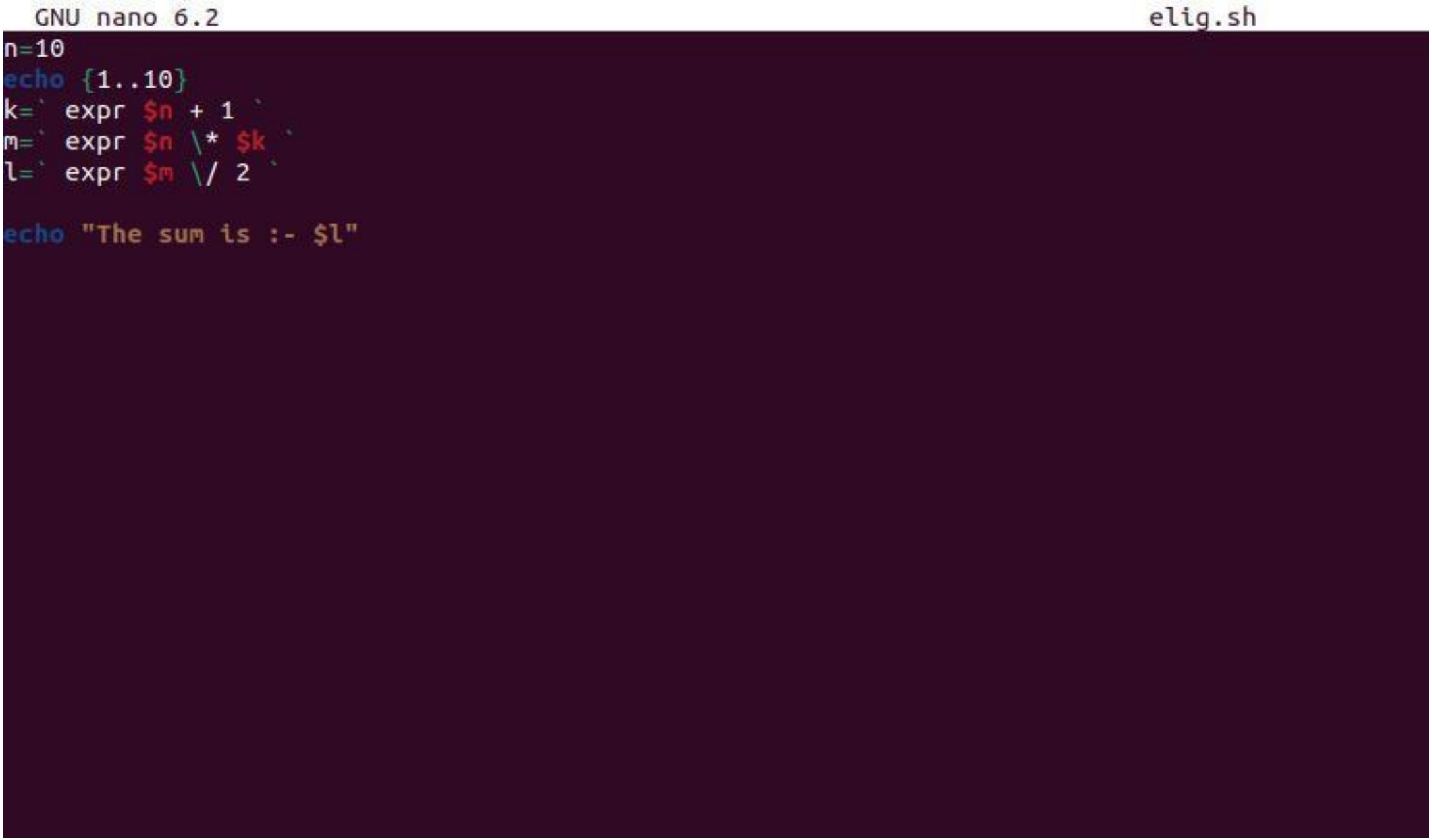
```
dbda@IACSD:~/Desktop/linux_assignment$ ./elig.sh
Test Data : 7
1 2 3 4 5 6 7
The sum is :- 28
dbda@IACSD:~/Desktop/linux_assignment$ ./elig.sh
Test Data : 11
1 2 3 4 5 6 7 8 9 10 11
The sum is :- 66
dbda@IACSD:~/Desktop/linux_assignment$
```

```
  GNU nano 6.2                                                    elig.sh
read -p "Test Data : " n
for((i=1;i<=$n;i++))
do
        echo -n "$i "
done
k=` expr $n + 1 `
m=` expr $n \* $k `
l=` expr $m \/ 2 `

echo -e "\nThe sum is :- $l"
```

Q9

```
dbda@IACSD:~/Desktop/linux_assignment$ ./elig.sh
1 2 3 4 5 6 7 8 9 10
The sum is :- 55
dbda@IACSD:~/Desktop/linux_assignment$
```


GNU nano 6.2
elig.sh
n=10
echo {1..10}
k=` expr $n + 1 `
m=` expr $n \* $k `
l=` expr $m \/ 2 `
echo "The sum is :- $l"

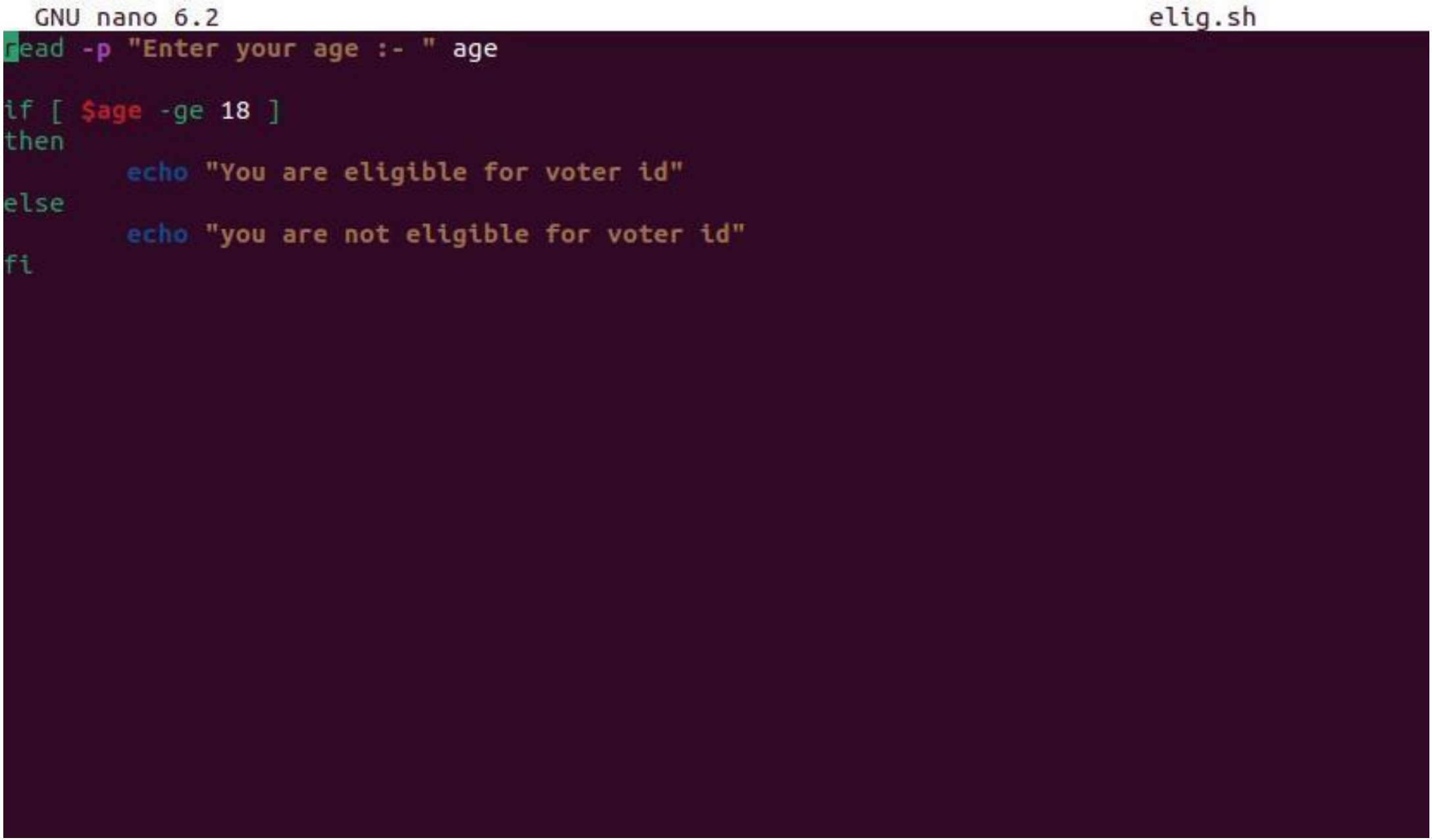
Q8

```
dbda@IACSD:~/Desktop/linux_assignment$ ./elig.sh
1 2 3 4 5 6 7 8 9 10
dbda@IACSD:~/Desktop/linux_assignment$
```


GNU nano 6.2
elig.sh
echo {1..10}

Q7

```
dbda@IACSD:~/Desktop/linux_assignment$ chmod 777 elig.sh
dbda@IACSD:~/Desktop/linux_assignment$ ./elig.sh
Enter your age :- 87
You are eligible for voter id
dbda@IACSD:~/Desktop/linux_assignment$ ./elig.sh
Enter your age :- 10
you are not eligible for voter id
dbda@IACSD:~/Desktop/linux_assignment$
```


GNU nano 6.2
elig.sh
read -p "Enter your age :- " age
if [$age -ge 18]
then
echo "You are eligible for voter id"
else
echo "you are not eligible for voter id"
fi

Q6

```
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 2024
year is leap
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 1900
year is not leap
dbda@IACSD:~/Desktop/linux_assignment$
```

GNU nano 6.2 int.sh

```
\read -p "Enter a number := " num

n=` expr $num % 4 `
z=` expr $num % 100 `
y=` expr $num % 400 `

if [ $n -eq 0 ] && [ $y -eq 0 ]
then
        echo "year is leap"
elif [ $z -eq 0 ]
then
        echo "year is not leap"
elif [ $n -eq 0 ]
then
        echo "year is leap"
fi
```

Q5

```
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 10
number is even
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 5
nunber is odd
dbda@IACSD:~/Desktop/linux_assignment$
```

GNU nano 6.2 oddeven.sh

```
read -p "Enter a number : " num
n=` expr $num % 2 `
if [ $n -eq 0 ]
then
        echo "Number is Even"
else
        echo "Number is Odd"
fi
```

Q4

```
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 55
number is divisible by both 5 and 11
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 99
number is not divisible by both 5 and 11
dbda@IACSD:~/Desktop/linux_assignment$
```

```
  GNU nano 6.2                                                    int.sh
read -p "Enter a number := " num

n=` expr $num % 5 `
y=` expr $num % 11 `

if [ $n -eq 0 ] && [ $y -eq 0 ]
then
        echo "number is divisible by both 5 and 11"
else
        echo "number is not divisible by both 5 and 11"
fi
```

Q3

```
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := -1
you have entered -ve number
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 0
you have entered zero
dbda@IACSD:~/Desktop/linux_assignment$ ./int.sh
Enter a number := 2
you have entered +ve number
dbda@IACSD:~/Desktop/linux_assignment$
```

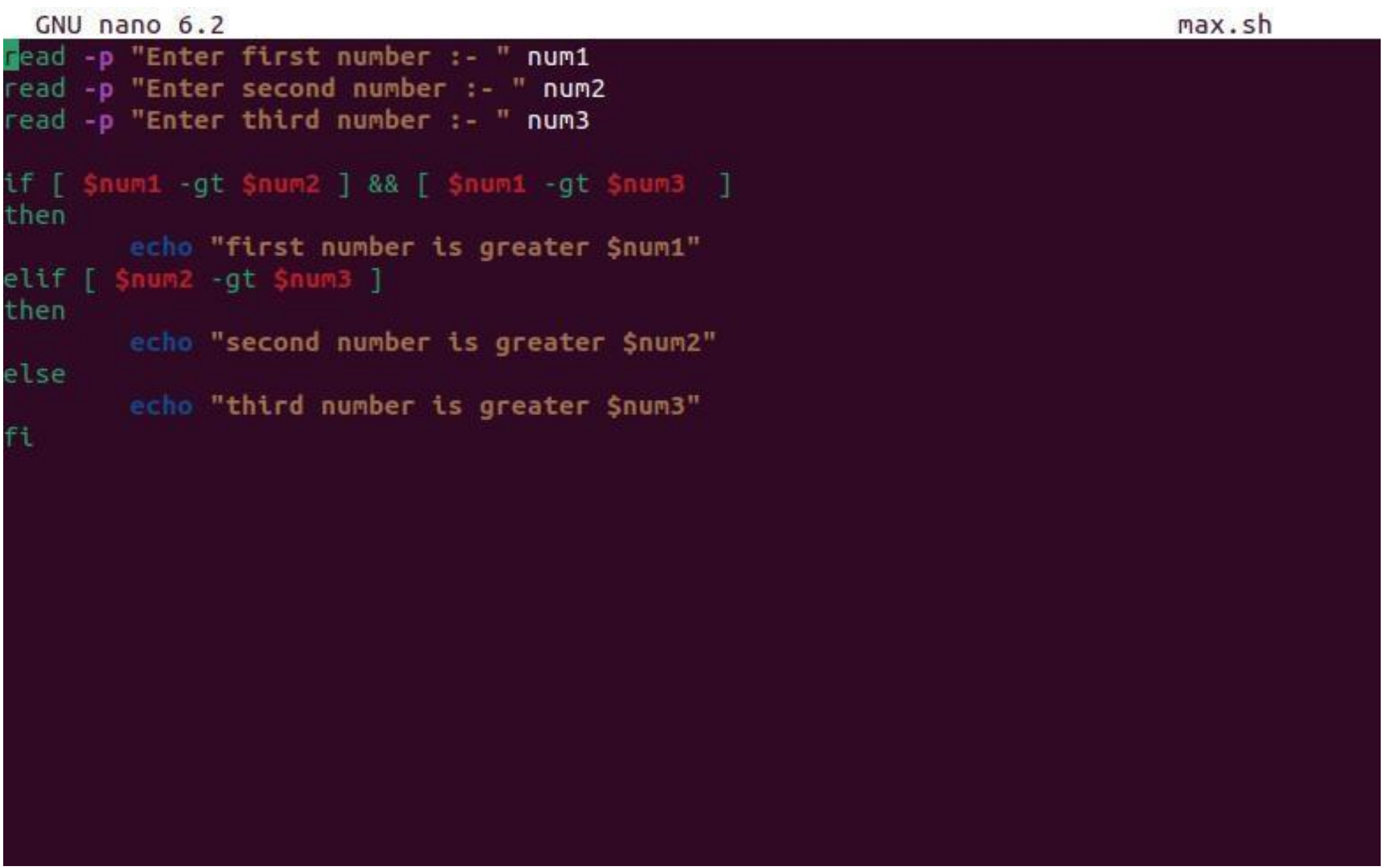
GNU nano 6.2 int.sh

```
read -p "Enter a number := " num

if [ $num -eq 0 ]
then
        echo "you have entered zero"
elif [ $num -lt 0 ]
then
        echo "you have entered -ve number"
else
        echo "you have entered +ve number"
fi
```

Q2

```
dbda@IACSD:~/Desktop/linux_assignment$ ./max.sh
Enter first number :- 10
Enter second number :- 20
Enter third number :- 30
third number is greater 30
dbda@IACSD:~/Desktop/linux_assignment$ ./max.sh
Enter first number :- 30
Enter second number :- 20
Enter third number :- 10
first number is greater 30
dbda@IACSD:~/Desktop/linux_assignment$ ./max.sh
Enter first number :- 20
Enter second number :- 30
Enter third number :- 10
second number is greater 30
dbda@IACSD:~/Desktop/linux_assignment$
```


GNU nano 6.2
max.sh
read -p "Enter first number :- " num1
read -p "Enter second number :- " num2
read -p "Enter third number :- " num3
if [$num1 -gt $num2] && [$num1 -gt $num3]
then
echo "first number is greater $num1"
elif [$num2 -gt $num3]
then
echo "second number is greater $num2"
else
echo "third number is greater $num3"
fi

Q1

```
  GNU nano 6.2                                                    max.sh *
#Q1
read -p "Enter first number :- " num1
read -p "Enter second number :- " num2

if [ $num1 -gt $num2 ]
then
        echo "first number is greater $num1"
else
        echo "second number is greater $num2"
fi
```

```
dbda@IACSD:~/Desktop/linux_assignment$ nano max.sh
dbda@IACSD:~/Desktop/linux_assignment$
dbda@IACSD:~/Desktop/linux_assignment$ ./max.sh
Enter first number :- 10
Enter second number :- 20
second number is greater 20
dbda@IACSD:~/Desktop/linux_assignment$ ./max.sh
Enter first number :- 20
Enter second number :- 10
first number is greater 20
dbda@IACSD:~/Desktop/linux_assignment$
```