1.Write a shell script to find area of a circle

```
echo "Enter the radius"

read r

echo "Area of the circle is"

echo "3.14*$r*$r" | bc
```

1. Write a shell script find given number is even or odd.

```
echo "Enter a number : "

read n

rem=$(( $n % 2))
if [ $rem -eq 0]
then

echo "$n is even number"

else


echo "$n is odd number"


fi
```

2. Write a shell script to find the greatest of three numbers.

```
echo "Enter Num1"

read num1

echo "Enter Num2"
```

```
read num2
echo "Enter Num3"
read num3
if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
echo $num1
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3]
 then
echo $num2
else
echo $num3
fi
```

3. Write a shell script to compute mean and standard deviaton of three numbers

```
echo "Enter three integers with space
between" read a b c
sum=`expr $a + $b + $c`
```

```
mean=`expr $sum / 3`
aa=$(($a - $mean) * ($a - $mean)))
bb=$(($b - $mean) * ($b - $mean)))
cc=$(($c - $mean) * ($c - $mean)))
sd=$( echo "sqrt(($aa + $bb + $cc) / 3)" | bc -l )
echo "sum=$sum"
echo "mean=$mean"
echo "Sd=$sd"
```

4. Write a shell script to find sum of all digits from a given number

```
echo "Enter a number"
read num
sum=0
while [ $num -gt 0]
do
   mod=$((num % 10))
   sum=$((sum + mod))
   num=$((num / 10))
```

done

echo $sum

5. Write a shell script to find reverse of a number.

```
echo "Enter a number"

read num

reverse=0

while [ $num -gt 0 ]

do

remainder=$(( $num % 10 ))

reverse=$(( $reverse * 10 +
$remainder ))

num=$(( $num / 10 ))

done

echo "Reversed number is :
$reverse"
```

6. Write a shell script to find prime numbers upto a given number

```
echo "Enter a limit"

read limit

echo "prime numbers upto $limit are:"
echo "1"
i=2
while [ $i -le $limit]
do

   flag=1

   j=2

   while [ $j -lt $i ]
   do

      rem=$(( $i % $j))

      if [ $rem -eq 0]

      then
```

```
        flag= 0
      break
      fi
   j=$(( $j+1 ))
   done
   if [ $flag -eq 1]
   then
   echo "$i"
   fi
i=$(( $i+1 ))
done
```

7. Write a shell script to find n fibinocci numbers.

```
echo "How many numbers do you want of Fibonacci series ?"
read total
x=0
```

```
y= 1
i=2
echo "Fibonacci Series up to $total terms :: "
echo "$x"
echo "$y"
while [ $i -lt $total ]
do
i=`expr $i + 1 `
z=`expr $x + $y`
echo "$z"
x=$y
y=$z
done
```

8. Write a shell script to check whether a given number is armstrong or not.

```
echo "Enter a number: "
```

```
read c
x=$c
sum= 0
r=0
n=0
while [ $x -gt 0 ]
do
r=`expr $x % 10`
n=`expr $r \* $r \* $r`
sum=`expr $sum +$n`
x=`expr $x / 10`
done
if [ $sum -eq $c ]
then
echo "It is an Armstrong Number."
else
echo "It is not an
Armstrong Number."
 fi
```

9. Write a shell script to find the factorial of a number.

```
echo "Enter a number"
read num
fact=1
while [ $num -gt 1 ]; do
    fact=$((fact * num))
    num=$((num - 1))
done
echo $fact
```