

**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
```

**2. 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
```

**3. Write a shell script to make a menu driven calculator using case.**

```
sum=0
```

```
i="y"
echo "Enter first number"
:" read n1
echo "Enter second number"
:" read n2
while [ $i = "y" ]
do
echo "1.Addition"
echo "2.Subtraction"
echo
"3.Multiplication"
echo "4.Division"
echo "Enter your choice"
read ch
case $ch in
1)sum=`expr $n1 +
$n2` echo "Sum
=$sum;; 2)sub=`expr
$n1 - $n2` echo "Sub
= "$sub;;
```

```
3)mul=`expr $n1 \* $n2`  
echo "Mul = "$mul;;  
4)div=`echo $n1 / $n2 | bc  
-l` echo "Div = "$div;;  
*)echo "Invalid choice";;  
esac  
echo "Do u want to continue  
?" read i  
if [ $i != "y" ]  
then  
exit  
fi  
done  
e
```

**4. 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
```

**5. Write a shell script to compute mean and standard deviation of three numbers**

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

## **6. 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)) #It will split each  
    digits sum=$((sum + mod)) #Add each  
    digit to sum num=$((num / 10)) #divide  
    num by 10.
```

done

echo \$sum

## **7. Write a shell script to find reverse of a number.**

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

```
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"
```

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

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

```
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
```

**9. Write a shell script to find n fibinocci numbers.**

```
#!/bin/bash

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
don
e
```

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

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

**11. Write a shell script to reverse a string and check whether a given string is palindrome or not.**

```
echo Enter the string
read s
echo $s>temp
rvs="$(rev
temp)" if [ $s =
$rvs ] then
echo "it is palindrome"
else
echo " it is not a
Palindrome" fi
```

**12. Write a shell script to count number of lines, words and characters of an input file**

```
#!/bin/bash
echo Enter the filename
read file
c=`cat $file | wc -c`
w=`cat $file | wc -w`
```

```
l=`grep -c "." $file`
```

echo Number of characters in \$file is

```
$c echo Number of words in $file is
```

```
$w echo Number of lines in $file is $l
```

**13. 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
```

**14. An employee basic pay is input through keyboard where DA is 40% of basic pay and HRA is 20% of basic**

**pay. write a shell script to calculate gross salary. Gross salary = Basic pay + DA + HRA.**

```
#!/bin/bash

echo "enter the basic salary:"

read basal

grosal=$( echo
"$basal+((40/100)*$basal)+((20/100)*$basal)" | bc -
l)

echo "The gross salary : $grosal"
```

**15. Code for Shell script which whenever gets executed displays the message GoodMorning/Good afternoon /Good Evening depending on the time it get executed.**

```
#!/bin/bash

hour=`date +%I`
min=`date +%M`
ampm=`date +%p`
echo "$hour : $min
$ampm" if [ $ampm="AM"
]
then
echo "Good Morning"
```

else

if [ \$hour -eq 12 -o \$hour -lt

4] then

echo "Good afternoon"

elif [ \$hour -ge 4 -a \$hour -le

8 ] then

echo "Good

evening" fi

fi