

1.Shell Script Program to perform all Arithmetic operations.

Shell script:

```
echo shell script program to perform all arithmetic operations
echo enter two numbers
read a
read b
sum=$(( a+b ))
echo $a+$b=$sum
sub=$(( a-b ))
echo $a-$b=$sub
mul=$(( a*b ))
echo $a*$b=$mul
div=$(( a/b ))
echo $a/$b=$div
mod=$(( a%b ))
echo $a%$b=$mod
```

2.Shell Script Program to find simple interest.

Shell script:

```
echo shell script to find simple interest
echo enter the principle amount
read p
echo enter the year and rate
read n
read r
s=$(( p*n*r/100 ))
echo simple interest=$s
```

3.Shell Script Program to find Area of Square, Rectangle, and Circle.

Shell script:

```
echo shell script to calculate area of figures
echo enter the length and breadth of rectangle
read l
read b
```

```

rect=$(( l*b ))
echo area of rectangle=$rect
echo enter the length of square
read a
sqr=$(( a*a ))
echo area of square=$sqr
echo enter the radius
read r
cir=$(echo "3.14*$r*$r" | bc)
echo area of circle=$cir

```

4.Shell Script Program to print your Address ‘n’ times.

Shell script:

```

echo Enter limit
read n
echo Enter the name
read name
echo Enter house name
read house
echo Enter the place
read place
while [ $n -gt 0 ]
do
    echo
    echo $name
    echo $house
    echo $place
    n=$(( n-1 ))
done

```

5.Shell Script Program to find whether number is even or odd.

Shell script:

```

echo Enter a number
read n
if [ $((n%2)) -eq 0 ]
then
    echo Number is Even
else
    echo Number is Odd
fi

```

6.Shell Script Program to find whether number is +ve, -ve or 0.

Shell script:

```
echo Enter a number
read n
if [ $n -gt 0 ]
then
    echo Number is positive
elif [ $n -lt 0 ]
then
    echo Number is negative
else
    echo Number is zero
fi
```

7.Shell Script Program to find Greatest of 3 numbers.

Shell script:

```
echo Enter three numbers
read a
read b
read c
if [ $a -gt $b ] && [ $a -gt $c ]
then
    echo $a is large
elif [ $b -gt $a ] && [ $b -gt $c ]
then
    echo $b is large
else
    echo $c is large
fi
```

8.Shell Script Program to whether year is Leap year or not.

Shell script:

```
echo Enter the year
read y
if [ $((y%4)) -eq 0 ]
then
    echo Leap year
else
    echo Not leap year
fi
```

9.Shell Script Program to print natural numbers from 1 to 10 using WHILE loop.

Shell script:

```
echo Enter the first number
read a
echo Enter the last number
read b
while [ $a -le $b ]
do
    echo $a
    a=$((a+1))
done
```

10.Shell Script Program to print perfect numbers from 1 to 100.

Shell script:

```
echo perfect number between 1 and 100
n=1
while [ $n -le 100 ]
do
    i=1
    an=0
    while [ $i -le $(( n / 2 )) ]
    do
        if [ $(( n % i )) -eq 0 ]
        then
            an=$(( an + i ))
        fi
        i=$(( i + 1 ))
    done
    if [ $n -eq $an ]
    then
        echo $n
    fi
    n=$(( n + 1 ))
done
```

11.Shell Script Program to reverse a number.

Shell script:

```
echo enter a number
```

```

read n
echo Number is $n
s=0
rev=0
while [ $n -gt 0 ]
do
    s=$((n%10))
    rev=$((rev*10+s))
    n=$((n/10))
done
echo Reverse number is :$rev

```

12.Shell Script Program to find whether the given number is perfect or not.

Shell script:

```

echo Enter a number
read a
i=1
an=0
while [ $i -le $(( a / 2 )) ]
do
    if [ $(( a % i )) -eq 0 ]
    then
        an=$(( an + i ))
    fi
    i=$(( i + 1 ))
done
if [ $a -eq $an ]
then
    echo Number is perfect
else
    echo Number is not perfect
fi

```