*1. Prime Number*

-echo "Enter a range:"

read m

read n

echo "The given range is from $m and $n:"

echo "The prime number are: "

while [ $m -le $n ]

do

flag=1

i=2

while [ $i -lt $m ]

do

if [ `expr $m % $i` -eq 0 ]

then

flag=0

break

else

i=`expr $i + 1`

fi

done

if [ $flag -eq 1 ]

then

echo $m

fi

m=`expr $m + 1`

done

## *2.Odd and Even*

-echo -n "Enter a number:"

read n

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

then

echo "even"

else

echo "odd"

fi

*3.Binary to decimal*

-echo "Enter a decimal number:"

read num

bin=""

while [[ $num -gt 0 ]]

do

rem=`expr $num % 2`

bin=$rem$bin

num=`expr $num / 2`

done

echo "$bin"

#echo "Enter a decimal number"

#read n

#c=$(echo "obase=2;$n" | bc)

#echo $c

*4.Swap two numbers using variables*

-echo "Enter two numbers:"

read num1

read num2

var=$num1

num1=$num2

num2=$var

echo "Swapped no. are $num1 $num2"

*5.Swap two numbers without variables*

-echo "enter a number1:"

read num1

echo "enter a number2:"

read num2

x=$num2

y=$num1

echo "$y, $x"

*6.Reversing a given number*

-echo "Enter a number:"

read n

k=0

while [ $n -gt 0 ]

do

num=`expr $n % 10`

k=$((($k \* 10) + $num))

n=`expr $n / 10`

done

echo "number is $k"

*7.Multiplication Table*

-echo "Enter a number:"

read n

i=1

while [ $i -le 10 ]

do

echo " $n x $i = $(( n \* i )) "

i=$(( i + 1 ))

done

*8.Leap year or Not.*

-echo "Enter a year:"

read y

if [[ $(( $y % 400 )) -eq 0 ]] && [[ $(( $y % 100 )) -eq 0 ]]

then

echo "It is a leap year"

elif [[ $(( $y % 100 )) -ne 0 ]] && [[ $(( $y % 4 )) -eq 0 ]]

then

echo "It is leap year"

else

echo "It is not leap year"

fi

*9.Generate Fibonacci series.*

-echo "Enter a number:"

read n

a=0

b=1

echo "Fibonacci series is:"

for (( i=0; i<$n; i++ ))

do

echo "$a"

fn=$(( a + b ))

a=$b

b=$fn

done

*10.Basic Calculato*r

-echo "Enter Two numbers : "

read a

read b

echo "Enter Choice :"

echo "1. Addition"

echo "2. Subtraction"

echo "3. Multiplication"

echo "4. Division"

read choice

case $choice in

1)op=`echo "scale=2; $a + $b" | bc`;;

2)op=`echo "scale=2; $a - $b" | bc`;;

3)op=`echo "scale=2; $a \* $b" | bc`;;

4)op=`echo "scale=2; $a / $b" | bc`;;

esac

echo "Result : $op"

*11.Greatest number among three numbers.*

-echo "Enter three numbers one by one:"

read a

read b

read c

if [[ $a -gt $b ]] && [[ $a -gt $c ]]

then

echo "$a is greatest"

elif [[ $b -gt $c ]]

then

echo "$b is greatest"

else

echo "$c is greatest"

fi

*12.Pattern*

-echo "Enter number of rows:"

read n

a=0

for (( i=0; i<$n; i++ ))

do

echo " "

for (( j=0; j<=$i; j++ ))

do

a=$(( a + 1 ))

echo -n "$a"

done

done

*13. Tax Amount*

-echo "Enter the amount:"

read amount

if [[ $amount -lt 1000 ]]

then

tax=`echo "scale=2; $amount\*5/100" | bc`

totalamount=`echo "scale=2; $amount+$tax" | bc`

discount=`echo "scale=2; $totalamount\*10/100" | bc`

finalamount=`echo "scale=2; $totalamount-$discount" | bc`

echo "Final amount is: $finalamount"

else

tax=`echo "scale=2; $amount\*7/100" | bc`

totalamount=`echo "scale=2; $amount+$tax" | bc`

discount=`echo "scale=2; $totalamount\*20/100" | bc`

finalamount=`echo "scale=2; $totalamount-$discount" | bc`

echo "Final amount is: $finalamount"

fi