**Shell Program**

1. Write a shell script to ask your name, program name and enrollment number and print it on the screen.

Input:

Echo “Enter your name:”  
Read Name  
Echo “Enter your program name:”  
Read Prog  
Echo “Enter your enrollment number:”  
Read Enroll  
Clear  
Echo “Details you entered”  
Echo Name: $Name  
Echo Program Name: $Prog  
Echo Enrolment Number: $Enroll

OutPut:

1. Write a shell script to find the sum, the average and the product of the four integers entered

Input

Echo “Enter four integers with space between”  
Read a b c d  
Sum =`expr $a + $b + $c + $d`  
Avg =`expr $sum / 4`  
Dec =`expr $sum % 4`  
Dec =`expr \ ($dec \\* 1000 \) / 4`  
Product =`expr $a \\* $b \\* $c \\* $d`  
Echo Sum = $sum  
Echo Average = $avg. $dec  
Echo Product = $product

1. Write a shell program to exchange the values of two variables

Input

Echo “Enter value for a:”  
Read a  
Echo “Enter value for b:”  
Read b  
Clear  
Echo “Values of variables before swapping”  
Echo A = $a  
Echo B = $b  
Echo Values of variables after swapping  
a = `expr $a + $b`  
b = `expr $a – $b`  
a = `expr $a – $b`  
Echo A = $a  
Echo B = $b

1. Write a shell script to display the digits which are in odd position in a given 5 digit number

Input

Echo “Enter a 5 digit number”  
Read num  
n = 1  
while [ $n -le 5 ]  
do  
a = `Echo $num | cut -c $n`  
Echo $a  
n = `expr $n + 2`  
done

1. Write a shell program to reverse the digits of five digit integer

Input

Echo “Enter a 5 digit number”  
Read num  
n = $num  
rev=0  
while [ $num -ne 0 ]  
do  
r = `expr $num % 10`  
rev = `expr $rev \\* 10 + $r`  
num = `expr $num / 10`  
done  
Echo “Reverse of $n is $rev”

1. Write a shell program to concatenate two strings and find the length of the resultant string

Input

Echo “Enter first string:”  
Read s1  
Echo “Enter second string:”  
Read s2  
s3 = $s1$s2  
len = `Echo $s3 | wc -c`  
len = `expr $len – 1`  
Echo “Concatenated string is $s3 of length $len ”

1. Write a shell program to find the position of substring in given string

Input

Echo “Enter main string:”  
Read main  
l1 = `Echo $main | wc -c`  
l1 = `expr $l1 – 1`  
Echo “Enter sub string:”  
Read sub  
l2 = `Echo $sub | wc -c`  
l2 = `expr $l2 – 1`  
n = 1  
m = 1  
pos = 0  
while [ $n -le $l1 ]  
do  
a = `Echo $main | cut -c $n`  
b = `Echo $sub | cut -c $m`  
if [ $a = $b ]  
then  
n = `expr $n + 1`  
m = `expr $m + 1`  
pos = `expr $n – $l2`  
r = `expr $m – 1`  
if [ $r -eq $l2 ]  
then  
break  
fi  
else  
pos = 0  
m = 1  
n = `expr $n + 1`  
fi  
done  
Echo “Position of sub string in main string is $pos”

1. Write a shell program to find the gcd for the 2 given numbers

Input

Echo “Enter two numbers with space in between”  
Read a b  
m = $a  
if [ $b -lt $m ]  
then  
m = $b  
fi  
while [ $m -ne 0 ]  
do  
x = `expr $a % $m`  
y = `expr $b % $m`  
if [ $x -eq 0 -a $y -eq 0 ]  
then  
Echo “gcd of $a and $b is $m”  
break  
fi  
m = `expr $m – 1`  
done

1. Write a shell program to add, subtract and multiply the 2 given numbers passed as command line arguments

Input

add = `expr $1 + $2`  
sub = `expr $1 – $2`  
mul = `expr $1 \\* $2`  
Echo “Addition of $1 and $2 is $add”  
Echo “Subtraction of $2 from $1 is $sub”  
Echo “Multiplication of $1 and $2 is $mul”

1. Write a shell script to find the sum, the average and the product of the four integers entered

Input

Echo “Enter four integers with space between”  
Read a b c d  
Sum =`expr $a + $b + $c + $d`  
Avg =`expr $sum / 4`  
Dec =`expr $sum % 4`  
Dec =`expr \ ($dec \\* 1000 \) / 4`  
Product =`expr $a \\* $b \\* $c \\* $d`  
Echo Sum = $sum  
Echo Average = $avg. $dec  
Echo Product = $product

1. Write a shell program to exchange the values of two variables

Input

Echo “Enter value for a:”  
Read a  
Echo “Enter value for b:”  
Read b  
Clear  
Echo “Values of variables before swapping”  
Echo A = $a  
Echo B = $b  
Echo Values of variables after swapping  
a = `expr $a + $b`  
b = `expr $a – $b`  
a = `expr $a – $b`  
Echo A = $a  
Echo B = $b

1. Write a shell program to reverse the digits of five digit integer

Input

Echo “Enter a 5 digit number”  
Read num  
n = $num  
rev=0  
while [ $num -ne 0 ]  
do  
r = `expr $num % 10`  
rev = `expr $rev \\* 10 + $r`  
num = `expr $num / 10`  
done  
Echo “Reverse of $n is $rev”

1. Shell Program to print n natural number

Input

#! /bin/bash  
  
echo "enter the value of n:"  
read n  
for((i=1;i<=n;i++))  
do  
echo " $i"  
  
done

1. Shell Program to find area of different shapes

Input

echo “Enter the side of the square:”

read s

echo “Enter the length and breadth of rectangle:”

read leng

read brea

echo “Enter the radius of the circle:”

read radius

echo “Area of the square is:` expr $s \\* $s ` ”

echo “Area of the rectangle is: `expr $leng \\* $brea`”

echo “Area of the circle is: `expr 3.14 \\* radius \\* radius`”

1. Shell Program to check number is palindrome

Input

#!/bin/bash

# GNU bash Script

n=12321

rev=$(echo $n | rev)

if [ $n -eq $rev ]; then

echo "Number is palindrome"

else

echo "Number is not palindrome"

Fi

1. Shell Program for decimal to binary conversion

Input

echo "Enter the num"

read n

val=0

power=1

while [ $n -ne 0 ]

do

r=`expr $n % 2`

val=`expr $r \\* $power + $val`

power=`expr $power \\* 10`

n=`expr $n \/ 2`

done

echo "Binary equivalent=$val"

1. Shell Program factorial using recursion

Input

echo "Enter a number"

# Read the number

read num

fact=1

for((i=2;i<=num;i++))

{

fact=$((fact \* i))

}

echo $fact