Gretest of three numbers

#!/bin/bash

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 is greater"

elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]

then

echo "$num2 is greater than others"

else

echo "$num3 is greater than others"

fi

Arithmetic operation

echo "1.add"

echo "2.subtract"

echo "3.multiply"

echo "4.divide"

echo "Enter your choice"

read i

echo "Enter two numbers"

read a

read b

case $i in

1) x=`expr $a + $b`

echo "The sum is $x";;

2) x=`expr $a - $b`

echo "The result is $x";;

3) x=`expr $a \\* $b`

echo "The product is $x";;

4) x=`expr $a / $b`

echo "The result is $x";;

esac

Factorial

echo "Factorial of the given number"

echo "Enter the number"

read a

fact=1

n=$a

if [ $a -eq 0 ]

then

echo "Factorial of 0 is 1"

else

while [ $a -gt 0 ]

do

fact=`expr $fact \\* $a`

a=`expr $a - 1`

done

echo "Factorial of $n is $fact"

fi

Alphabet or not

echo "Enter a character"

read char

if [[ $char =~ ^[a-zA-Z]$ ]]; then

echo "The input is an alphabet."

else

echo "The input is not an alphabet."

Fi

Odd or even

echo "Enter a number:"

read num

if [ (expr $num % 2) -eq 0 ]

then

echo "The input is an even number."

else

echo "The input is an odd number."

Fi

Swapping two variables

echo "Enter first number:"

read a

echo "Enter second number:"

read b

echo "Before swapping: a = $a, b = $b"

a=$(expr $a + $b)

b=$(expr $a - $b)

a=$(expr $a - $b)

echo "After swapping: a = $a, b = $b"

Lcm and gcd

echo "Enter first number:"

read a

echo "Enter second number:"

read b

x=$a

y=$b

while [ $y -ne 0 ]; do

temp=$y

y=$(expr $x % $y)

x=$temp

done

gcd=$x

lcm=$(expr $a \\* $b / $gcd)

echo "GCD of $a and $b is: $gcd"

echo "LCM of $a and $b is: $lcm"

sum of n numbers

echo "Enter a number:"

read n

sum=0

for (( i=1; i<=n; i++ ))

do

sum=$(expr $sum + $i)

done

echo "The sum of the first $n natural numbers is: $sum"

Reverse a number

echo "Enter a number:"

read num

reverse=0

original\_num=$num

while [ $num -ne 0 ]

do

remainder=$(expr $num % 10)

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

num=$(expr $num / 10)

done

echo "The reverse of $original\_num is: $reverse"

Fibonacci series

#!/bin/bash

echo "Enter the number of terms in the Fibonacci series:"

read n

a=0

b=1

echo "Fibonacci series up to $n terms:"

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

do

echo -n "$a "

next=$(expr $a + $b)

a=$b

b=$next

done

echo

Prime number or not

echo "Enter a number:"

read num

if [ $num -lt 2 ]; then

echo "$num is not a prime number."

exit

fi

for (( i=2; i\*i<=$num; i++ ))

do

if [ $(expr $num % $i) -eq 0 ]; then

echo "$num is not a prime number."

exit

fi

done

echo "$num is a prime number."

Palindrome

echo "Enter a number:"

read num

original\_num=$num

reversed=0

while [ $num -gt 0 ]

do

remainder=$(expr $num % 10)

reversed=$(expr $reversed \\* 10 + $remainder)

num=$(expr $num / 10)

done

if [ $reversed -eq $original\_num ]; then

echo "$original\_num is a palindrome."

else

echo "$original\_num is not a palindrome."

Fi

Amrstrong number

echo "Enter a number:"

read num

original\_num=$num

sum=0

while [ $num -gt 0 ]

do

digit=$(expr $num % 10)

sum=$(expr $sum + $digit \\* $digit \\* $digit)

num=$(expr $num / 10)

done

if [ $sum -eq $original\_num ]; then

echo "$original\_num is an Armstrong number."

else

echo "$original\_num is not an Armstrong number."

Fi

Pyramid using \*

echo "Enter the number of rows:"

read rows

for (( i=1; i<=rows; i++ ))

do

for (( j=1; j<=i; j++ ))

do

echo -n "\* "

done

echo

done

Pyramid using numbers

echo "Enter the number of rows:"

read rows

for (( i=1; i<=rows; i++ ))

do

for (( j=i; j<rows; j++ ))

do

echo -n " "

done

for (( k=1; k<=i; k++ ))

do

echo -n "$k "

done

echo

done

full Pyramid using \*

echo "Enter the number of rows:"

read rows

for (( i=1; i<=rows; i++ ))

do

for (( j=i; j<rows; j++ ))

do

echo -n " "

done

for (( k=1; k<=2\*i-1; k++ ))

do

echo -n "\*"

done

echo

done

compare two strings

echo "Enter the first string:"

read str1

echo "Enter the second string:"

read str2

if [ "$str1" = "$str2" ]; then

echo "The strings are equal."

else

echo "The strings are not equal."

fi