1. Write a Python Program to Find LCM?

from functools import \* #to use reduce function

nums = [] #list to store inputs from user

print ('enter your numbers. press anything else once done')

while True: #loop to take indefinite inputs from user

number=input()

if number.isdigit(): #check if input is number

nums.append(int(number)) #add the number to the list of inputs

else: #stop taking input once the entry isnt number

break

def computeLCM(x, y): #function to find lcm of two numbers

mul = x\*y

while(y): #finding hcf using Euclidean algo

x, y = y, x % y

return mul/x #as lcm=(a\*b)/hcf #here x is hcf

lcm = reduce(computeLCM,nums) #find lcm of first two numbers, then find lcm of result and next num

print ('LCM is ', int(lcm))

1. Write a Python Program to Find HCF?

from functools import \* #to use reduce function

nums = [] #list to store inputs from user

print ('enter your numbers. press anything else once done')

while True: #loop to take indefinite inputs from user

number=input()

if number.isdigit(): #check if input is number

nums.append(int(number)) #add the number to the list of inputs

else: #stop taking input once the entry isnt number

break

def computeHCF(x,y): #function to find hcf of two numbers

if x > y:

small = y

else:

small = x

for i in range(1, small+1): #run loop for the smaller number

if((x % i == 0) and (y % i == 0)):

hcf = i #highest number which divides both will be hcf

return hcf

hcf = reduce(computeGCD,nums) #find hcf of two numbers, then find hcf of result and next num

print ('HCF is', hcf)

1. Write a Python Program to Convert Decimal to Binary, Octal and Hexadecimal?

num = int(input('enter your number '))

base= int(input('enter 2 for binary, 8 for octal or 16 for hexadecimal '))

hex = {10:'A', 11:'B', 12:'C',13:'D',14:'E',15:'F'} #dictionary for hexadecimal

y = '' #to store remainders as string

def convert(num):

global y

if num==0: #recursion will end when remainder becomes zero

return y #final value of y will be the conversion

else:

x= num%base

if x>9: #in case base is 16

x=hex[x]

y= str(x)+y #converting remainder to string and concatenating to y

return convert(num//base) #recursion to apply convert function on quotient

print ('conversion:', convert(num))

1. Write a Python Program To Find ASCII value of a character?

chr = input('enter a character ')

print ('ASCII value is', ord(chr))

1. Write a Python Program to Make a Simple Calculator with 4 basic mathematical operations?

def sum(x,y): #function for sum

print ('Result:',x+y)

return x+y

def sub(x,y): #function for subtraction

print ('Result:',x-y)

return x-y

def mul(x,y): #function for multiplication

print ('Result:',x\*y)

return x\*y

def div(x,y): #function for division

print ('Result:',x/y)

return x/y

def oper(): #function to take operator and next number input from user

global num

chr = input('enter + for add, - for subtract, \* for multiply, / for divide ')

num2 = int(input('enter next number '))

if chr == '+':

num = sum(num,num2) #num will store the result of previous operation

oper()

if chr == '-':

num = sub(num,num2)

oper()

if chr == '\*':

num = mul(num,num2)

oper()

if chr == '/':

num = div(num,num2)

oper()

num = int(input('enter a number '))

oper()