# 1.Check wether given number is even or not

n = int(input())

if n%2==0:

print("Even")

else:

print("Not even")

# 2.Convert temperature in degree centigrade to Fahrenhit

c =int(input())

f =(c\*9/5)+32

print(f)

# 3. Product of real numbers

from functools import reduce

real\_numbers = []

n = int(input())

for i in range(n):

num =int(input())

real\_numbers.append(num)

product=reduce((lambda x,y:x\*y),real\_numbers)

print(product)

# 4. Factorial of numbers

def fact(n):

if n==0:

return 1

else:

return n\*fact(n-1)

m= int(input())

res = fact(m)

print(res)

# 5. Linear search

def ls(l1, x):

for i in range(len(l1)):

if l1[i] == x:

return i

return "Not Found"

l1 = ['t','u','t','o','r','i','a','l']

x = 'o'

print("element found at index "+str(ls(l1,x)))

# 6. Binary search

def binary\_search(arr, low, high, x):

if high >= low:

mid = (high + low) // 2

if arr[mid] == x:

return mid

elif arr[mid] > x:

return binary\_search(arr, low, mid - 1, x)

else:

return binary\_search(arr, mid + 1, high, x)

else:

return -1

arr = [ 2, 3, 4, 10, 40 ]

x = 3

result = binary\_search(arr, 0, len(arr)-1, x)

if result != -1:

print("Element is present at index", str(result))

else:

print("Element is not present in array")

# 7. Largest Value

l1 = []

le= int(input("Enter the length of the array l1 : "))

for i in range(le):

e = int(input("Enter the all element : "))

l1.append(e)

l1.sort()

print("Array l1 =", l1)

print("Largest element is:", l1[-1])

# 8. Python program to delete an element from a list by index

list = [1,2,3,4,5,6,7,8,9]

del list[3]

print(list)

# 9.Python program to print all the items in a dictionary

dicta = {'mango':50, 'apple':90,'Goa':40,'fineapple':60}

[print(value) for value in dicta.values()]

# 10.Sum and average of 10 numbers

sum=0

num1=int(input("please enter the 10 integers : "))

for i in range(1,num1+1,1):

num= int(input("enter the number : "))

sum = sum+num

print("sum = ",sum)

print("average = ",sum/num1)