#Problem 1

a = input('Please Enter A Number ')

if a[-1] == "%":

a = float(a[:-1]) / 100.0

else:

a = float(a)

print(a)

#Problem2

celsius = a = float(input('Enter Celsius: '))

fahrenheit = (celsius \* 1.8) + 32

print('{} degree Celsius is equal to {} degree Fahrenheit' .format(celsius,fahrenheit))

#Problem 3

inches = int(input("Please enter inches:"))

feet = inches / 12

inches=inches-(int(feet)\*12)

print('{} feet and {} inches'.format(int(feet),inches))

#Problem 4

cost=0

i=int(input("Please Enter Number:"))

if i<100:

cost=i\*50

print(cost)

else:

cost=50\*100+30\*(i-100)

print(cost)

#problem 5

year=int(input("Enter year to be checked:"))

if(year%4==0 and year%100!=0 or year%400==0):

print("It is a leap year!")

else:

print("Its not a leap year")

#problem 6

sum=0

count=0

for num in range(100):

if num % 3 == 0 and num!=0:

count=count+1

sum=sum+num

print('Average: ',sum/count)

#problem 7

import cmath

c=1980

r=(-1)\*\*2-4\*1\*c

sol1 = (-1-cmath.sqrt(r))/(2\*1)

sol2 = (-1+cmath.sqrt(r))/(2\*1)

print('The solution are {0} and {1}'.format(sol1,sol2))

#problem 8

value=[6,5,4,3,2,1]

value.sort()

print("Sum of the smallest and largest number:",value[0]+value[-1])

print("Sum of second smallest and second largest:",value[1]+value[-2])

print("Sum of third smallest and third largest number",value[2]+value[-3])

#problem 9

value=[10,9,8,7,6,4,5,3,2,1]

value.sort()

c=0

for i in value:

c=c+i

avg=c/len(value)

print("Difference between average number and smallest number:",avg-value[0])

print("difference between average and largest number: ",avg-value[-1])

#problem 10

a = float(input('Enter first side: '))

b = float(input('Enter second side: '))

c = float(input('Enter third side: '))

s = (a + b + c) / 2

area = (s\*(s-a)\*(s-b)\*(s-c)) \*\* 0.5

print('The area of the triangle is {}' .format(area))