Arif planned to make a room cleaning robot for his college mini project competition. First he has to code program to simulate the robot movements inside the room. He measured the length and width of the room. Once the values are available, his program should compute and display the area of the room. Can you help Arif with a suitable logic for the code?

```
#code by shantanu
l = float(input())
b = float(input())
a = l*b
fin=round(a,2)
print(fin)
```

Pinaccio went to the school. His Maths teacher gave the task to Pinaccio that to nd the range from the largest number and smallest number in the statistical data. Can you help him to nd the range? Constraints: Range=greatest integer(G)-smallest integer(S) Where 1≤G,S ≤1000 Input format: User should rst give the greatest integer e.g. 18 and then the smallest integer e.g.10 Output format The Range of given data = required answer.


```
#code by shantanu
G=int(input())
S=int(input())
Ra=G-S
print("The Range of given data = ",Ra,sep='')
```


Nancy bought apples in a fruit shop. The shop keeper specied the bill amount. Nancy also given some amount to the shop keeper for paying the bill. But she likes to know the quotient and remainder after dividing the amount given by her by the bill amount specied by shop keeper. Can you help Nancy in finding it?

```
#code by shantanu

import math

n1=int(input())

n2=int(input())

Q=math.floor(n1/n2)

R=n1%n2

print("Quotient:",Q,sep='')

print("Remainder:",R,sep='')
```

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Rathik organized technical round interview in a software company for the set of computer science candidates. The problem is to perform addition, subtraction, multiplication, and division of given two numbers. Rathik have given the deadline of only 5 minutes to complete the problem. Can you Help the candidates to complete the problem within the specied time limit ? Constraint 1 ≤ num1 ≤ 50 1 ≤ num2 ≤ 50 Input Format The two numbers num1 and num2 of type integers separated by the enterkey. Output Format Print Addition, Subtraction, Multiplication, Division, and Modulus of given two numbers in a separate line respectively. Refer the Testcases. Note: Rathik instructed his candidates to print the result of the division with 3 values after decimal point using the round().

```
num1=int(input())

num2=int(input())

ad=num1+num2

sub=num1-num2

div=num1/num2

mul=num1*num2

print("Addition :",ad)

print("Subtraction :",sub)
```

```
print("Multiplication :",mul)

print("Division :",round(div,3))
```

Ratik a young millionaire deposits $10000 into a bank account paying 7% simple interest per year. He left the money in for 5 years. He likes to predict the interest and the amount earned by him at the end of 5 years Can you help him to nd the interest and amount resided in his bank account after 5 years? Functional Description: interest = (p * i * t) / 100 and amount = p + interest. where p is total principal, i is rate of interest per year, and t is total time in years. Contraint: $10000.00≤ p ≤$250000.00 5.00 ≤ i ≤ 70.00 5 ≤ t ≤ 25 Input Format Three values representing Principle, Interest per year and Time in Investment of type oat, oat and integer respectively and each will be in separate lines.

```
#code by shantanu

p=float(input())

i=float(input())

t=float(input())

si= (p * i * t)/100

print('Interest after {ab:.0f} Years = ${si:.2f}'.format(si= (p * i * t)/100,ab=t))

at=p+si

print('Total Amount after {ab:.0f} Years = ${at:.2f}'.format(at=p+si,ab=t))
```

Athika and Ritu got a nice job at a MNC company . She was confused with the salary credited in her account.

To verify if the correct amount of HRA and DA was provided to them.

Ritu and Athika planned to develop a software that calculates the salary pay if the basic pay was provided.

The Salary policy of Athika and Ritu's Company is as follows: HRA is 80% of the basic pay and DA is 40% of basic pay.

Can you help Ritu and Athika in the software development?

Constraints

20000≤basic≤75000

Input Format

Single Integer representing the basic pay of the employee.

Output Format

Print the Gross salary of employee by adding the certain amount of HRA and DA to the basic pay and correcting to 2 decimal places.

"""

#code by shantanu

bpa = float(input(''))

hra = bpa*0.8

da = bpa*0.4

total = hra+da+bpa

print('{:.02f}'.format(total))

"""

Question description

In geometry, the area enclosed by a circle of radius r is πr^2. Here the Greek letter π represents a constant, approximately equal to 3.142, which is equal to the ratio of the circumference of any circle to its diameter. Subash wants to find the area of circle for the given radius. Can you help him to calculate the area of circle for the given radius?

Constraints

Subash has to declare the radius named as r with float datatype and pi as 3.142 without importing math

Input Format

Output Format

Use str() to print the output. Refer the Testcases.

 """

r = float(input(""))

pi = 3.142

area = pi * r**2

print("The area of the circle with radius",r,"is:",area)

"""

Compute the area of a triangle when the lengths of all three sides are known.

Let s1, s2 and s3 be the lengths of the sides.

Let s = (s1 + s2 + s3)/2.

Then the area of the triangle can be calculated using the following formula:

area =sqrt(s × (s − s1) × (s − s2) × (s − s3))

Develop a program that reads the lengths of the sides of a triangle from the user and displays its area.

Function Description

area =sqrt(s × (s − s1) × (s − s2) × (s − s3))

"""

#code by shantanu

import math

s1=float(input())

s2=float(input())

s3=float(input())

s=(s1+s2+s3)/2

area =math.sqrt(s*(s-s1)*(s-s2)*(s-s3))

```python
print('The area of triangle is {}'.format(area))
"""

 Laasya bought a new volleyball in the sports shop. It looks like a medium size.

 She somehow found the radius of the sphere.

 But she would like to know the volume of that ball.

 Can you help him in finding the Volume of the ball?
"""

r = float(input(''))

pi = 3.14

volume = (4.0/3.0)*pi*r**3

print(volume)

"""Problem Description:

Selvan is working as a QC in a reputed Multinational Conglmerate.

His task is to check if the given Keyboard has a valid alphabets.

But since many Keyboards are need to be verified, he is finding is difficult to finish the task.

Can you automate the checking process and reduce his work load?

Constraints:

a <= ch <= z

A <= ch <= X

1 <= ch <= 500

Input Format:

Only line of input has the single input that needs to be checked. It can be a character a-z or A-Z or a number

Output Format

If it is an Alphabet print ALPHABET else print NOT AN ALPHABET.
"""
```

```python
#code by shantanu

ch = input()


if ('a' <= ch <= 'z') or ('A' <= ch <= 'Z'):

    print("ALPHABET")

else:

    print("NOT AN ALPHABET")

    """Problem Description:
```

Caleb and Irfan are purchasing apples which were priced according to their size. But their budget is minimum.

So they plan to choose one small, one medium and one large apple so that it will fit in their budget.

So can you help them choose the right apple by creating a logic by naming three apples they choose as apple1,apple2,apple3.

Then check the condition if apple2 is greater than apple1 and apple3 is greater than apple2.

Constraints:

1≤ apple1 ≤600

1≤ apple2 ≤600

1≤ apple3 ≤600

Input format:

First Line: Single number of type integer representing the size of apple1

Second Line: Single number of type integer representing the size of apple2

Third Line: Single number of type integer representing the size of apple3

Output Format:

Print as "Fit into Budget" or "Doesn't fit into Budget" based on the condition."""

```
apple1 = int(input())

apple2 = int(input())

apple3 = int(input())

if apple2 > apple1 and apple3 > apple2:

    print("Fit into Budget")

else:

    print("Doesn't fit into Budget")

    """Problem  Description:
```

Simon was working in a Casa Grande.

His superior officer ordered him to construct a new building by incorporating equilateral, scalene and isosceles triangular shapes wherever possible.

But he has no idea about equilateral, scalene and isosceles triangle.

Can you clarify his doubt by giving him the correct category of triangle based on the values of sides given by simon?

Functional Description :

If All the Sides are Equal then it is a Equilateral Triangle

If two Sides are Equal then it is a Isosceles Triangle

If no Sides are Equal then it is a Scalene Triangle

Constraints:

1<=side1<=100

1<=side2<=100

1<=side3<=100

Input Format:

Each line has values of type integer separated by enter key representing 'side1','side2' and 'side3'.

Output Format:

Print as either equilateral or scalene or isosceles triangle based on the values of the sides.
"""

```python
#code by shantanu
side1 = int(input())
side2 = int(input())
side3 = int(input())
if side1 == side2:
    if side2 == side3:
        print("Equilateral triangle")
    else:
        print("Isoceles triangle")
elif side1 == side3:
    print("Isoceles triangle")
elif side2 == side3:
    print("Isoceles triangle")
else:
    print("Scalene triangle")


s1=int(input())
s2=int(input())
s3=int(input())
s4=int(input())
s5=int(input())
total=s1+s2+s3+s4+s5
avg=total/5
print("{:.2f}".format(avg),"Percent")
```

```python
if avg>=90:
    print("Grade A")
elif avg>=80:
    print("Grade B")
elif avg>=70:
    print("Grade C")
elif avg>=60:
    print("Grade D")
elif avg>=40:
    print("Grade E")
else:
    print("Grade F")
"""
```

Question Description:

Atifa would like to withdraw X ₹INR from an ATM.

The cash machine will only accept the transaction if X is a multiple of 5, and Atifa's account balance has enough cash to perform the withdrawal transaction (including bank charges).

For each successful withdrawal, the bank charges 0.5 ₹INR.

Functional Description:

Calculate and display the Atifa's account staus after the transaction based on the following condition:

If the amount requested > the available initial balance - bank charges and or if the requested amount is not the multiple of 5

In the First Line of Output Print as "Invalid Withdrawal Request"

In the Second Line of Output Print the Initial Balance with two values after decimal point.

If the amount requested ≤ to the available initial balance - bank charges and if the requested amount is not the multiple of 5

In the First Line of Output Print the Current balance after the successful transaction with two values after decimal point.

In the Second Line of Output Print the Initial Balance with two values after decimal point.

"""

```
#code by shantanu

requested_amount = int(input())

initial_balance = float(input())

bank_charges = 0.5

if requested_amount % 5 != 0 or requested_amount > initial_balance - bank_charges:

    print("Invalid Withdrawal Request")

    print("Initial Balance : {:.2f}".format(initial_balance))

else:

    current_balance = initial_balance - requested_amount - bank_charges

    print("Current Balance : {:.2f}".format(current_balance))

    print("Initial Balance : {:.2f}".format(initial_balance))
```

"""Problem Description:

Laasya looking at the friends birthday list on a social media site likes to find if the particular person's birthday year is a leap year or not.

Since many will have the same doubt she decides to automate the task by writing the code snippet for finding the same but she don't know the logic to write it.

Can you help Laasya to accomplish her task?

Constraints:

1 <= year<= 10000

Input Format:

The Single Line containing the integer value representing year.

Output Format:

Print as either NOT A LEAP YEAR or LEAP YEAR after checking the year."""

```python
year = int(input())


if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print("LEAP YEAR")
else:
    print("NOT A LEAP YEAR")
"""Problem Description:
```

Aarav a newbie entrepreneur was studying the profit and loss of his company.

He found out for some products cost price is greater than selling price, there was some loss and for other products he got some profit

Can you kindly automate this small work for him by creating a code that checks what arav wants?

Constraints:

30 <= cp<= 50,

30 <= sp<= 50

If Cost Price > Selling Price then its "Loss"

If Cost Price < Selling Price then its "Profit"

If Cost Price = Selling Price then its "No Profit No Loss".

Input Format:

First Line : Integer representing the Cost price

Second Line: Integer representing Selling Price

Output Format:

Print Profit , Loss or No Profit No Loss Based on the condition."""

```python
cp = int(input())

sp = int(input())


if cp > sp:

    print("Mislay")

elif cp < sp:

    print("Profit")

else:

    print("No Profit No Mislay")
```

"""Problem Description:

Aadi and Tara travel frequently around the world.

Since most of their travels are unplanned they usually book the rooms for stay nearer to the locality they are going to visit.

Functional Description:

In most of the tourist places the room rent is 20% high during peak seasons [April and May].

Can you help them with the Room Rent Estimation Portal using flow control concept that provides the total rent to pay if the details such as Month,Room Rent and Total days of stay are provided?

Constraints:

1≤month≤12

500≤roomrent≤5000

1≤numofdays≤15

Input Format:

The first line of the input has a single integer which corresponds to the number of the month. [Ex. January is 1, and March is 3].

The second line of the input has a single floating point number which corresponds to the room rent per day.

The third line of the input has a single integer which corresponds to the number of days stayed in the hotel.

```
#code by shantanu

month = int(input())

room_rent = float(input())

num_of_days = int(input())


if month == 4 or month == 5:

    total_rent = room_rent * num_of_days * 1.2

else:

    total_rent = room_rent * num_of_days


print("Rs.{:.2f}".format(total_rent))
"""
```

Problem Description:

Arav and Aaron are participating in the Bike racing. Arav have crossed some milestores earlier and Aaron crossed some milestores earlier during their racing,because they have changed their speeds at different times.

Both of them like to know the difference in speeds between them at different stages of racing.

Can you help finding the speed difference between Arav and Aaron?

Constraints:

20≤ aravspeed ≤100

20≤ aaronspeed ≤100

Input Format:

The first line of input represents the speed of Arav.

The second line of input represents the speed of Aaron.

Output Format:

Print difference between the driving speed of two participants in a single line.
"""

code by shantanu

```python
arav_speed = int(input())
aaron_speed = int(input())
if arav_speed > aaron_speed:
    speed_diff = arav_speed - aaron_speed
    print(speed_diff)
elif aaron_speed > arav_speed:
    speed_diff = aaron_speed - arav_speed
    print(speed_diff)
else:
    print(0)
```
"""

Problem Description:

The Election Commission of India distributed the voter ID to all eligible citizens.

But Amira didn't received a Voter ID on time.

So, she gets confused about her eligibility for voting?

Can you clarify her doubt?

Condition for Eligibility as per Election Commission of India is

(i) Eligible if age >=18

(i) Not Eligible if age <18

Constraints :

1≤age≤100

Input Format:

The only line of input has single value of type integer representing age.

Output Format:

Print as Eligible or Not Eligible based on the eligibility criteria in a single line. Refer the Testcases.

"""

#code by shantanu

age = int(input())

if age >= 18:

   print("Eligible")

else:

   print("Not Eligible")

"""

The Electricity Officer has mentioned the total counts of unit and amount.

The officer inform the customer the bill amount in a unique format.

The format given by electricity officer as follow:

But customers are finding the difficult to find the exact amount that needs to be paid. Can you help the customers?

"""

uc = int(input())

cpu = int(input())

tb = int(uc ** cpu)

print(tb)

Question description

Timothy Boon having the first name Timothy and Last name is Boon. Can you help him to make a program to display his name as Boon Timothy without using swap function.

```python
#code by shantanu

fname = input()

lname = input()

print("Hello "+ lname + " "+ fname)


'''Janaki'''

x1=int(input())

y1=int(input())

x2=int(input())

y2=int(input())

d=((x1 - x2)**2 + (y1 - y2)**2)**0.5

print(d)

"""
```

Binita was travelling from Chennai to Delhi in Rajdhani Express.

The train have arrived at the destination later than the estimated time.

So, Binita wants to know the total number of hours and minutes the train was delayed.

Can you help Binita in finding the exact hour and time Rajdhani Express was delay on the day of Binita's journey?

```
"""


tot = int(input(''))
```

```python
hrs = int(tot/60)

mins = int(tot % 60)

print(hrs, 'Hours and', mins, 'Minutes')
"""
```

2 ^15= 32768 and the sum of its digits is 3 + 2 + 7 + 6 + 8 = 26. What is the sum of the digits of the number 2^n ? Constraints 1≤n≤1000
"""

```python
#code by shantanu

def calculate(n, power):

    return sum([int(i) for i in str(pow(n, power))])

n = 2

power = int(input(''))

print (calculate(n, power))
"""
```

Selvan was playing with the a object of random size for stress relief.

Selvan knows that the Length, Width, and Height of the object.

But he would like to know the surface area of the object he is playing with.

Can you help him in finding it?

Functional Description

Surface area of the Object = 2 x [width x length + length x height + height x width]
"""

```python
l = int(input(''))

w = int(input(''))

h = int(input(''))

sa = (2*((w*l)+(l*h)+(h*w)))

print(sa)
```

Vetrivel wants to convert the units of time into seconds. He gets the days, hours, minutes, seconds from the user. Can you help him to convert the units in to seconds. Input Format Number of days, hours, minutes and seconds will be given which separated by enter key. Output Format Refer the Testcases

```python
#code by shantanu

days = int(input()) * 3600 * 24

hours = int(input()) * 3600

minutes = int(input()) * 60

seconds = int(input())

time = days + hours + minutes + seconds

print(time)
```