Use ctrl +shift + v to paste

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 1

Problem

Problem Description:
Binita is playing a chess. The game will be played on a rectangular grid consisting of N rows and M columns.

Initially all the cells of the grid are uncolored.

Binita's initial score is zero. At each turn, he chooses some cell that is yet not colored, and colors that cell.

The score obtained in this step will be number of neighboring colored cells of the cell that Binita colored in this step.

Two cells are neighbors of each other if they share a side between them.

The game will end when all the cells are colored.

Finally, total score obtained at the end of the game will sum of score obtained in each turn. Binita wants to know what maximum score he can get?

Can you please help her in finding this out?

Constraints:
$1 \le N, M \le 50$

Input Format:
The Only line of input contains two space-separated integers N, M denoting the dimensions of the grid.

Output Format:
Print the output a single line containing an integer corresponding to the maximal possible score Binita can obtain.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
          Scanner input = new Scanner(System.in);
         int n = input.nextInt();
         int m = input.nextInt();
          int ans = m*(n-1) + n*(m-1);
          System.out.println(ans);
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 2

Problem

Problem description:

Nathan works as an HR in a private company.

He had an opportunity to interview students from various disciplines.

He asked the candidates to perform the addition of two floating point numbers given by him an to print the output with three values after decimal point.

But the student failed a math test on adding two numbers. So many students could not complete the first round.

One day Nathan is invited as a chief placement trainer in a reputed engineering college.

He would like to know how many students are capable of solving the same problem.

Can you solve the problem and prove him that you are capable of solving it?

Constraints:

$1.00 \le var1 \le 25000.00$

$1 \le var2 \le 25000.00$

Input Format:

The only line of input has two input values of type float separated by a space.

Output Format:

In the only line of output print the sum of two numbers with three values after decimal point

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        float var1 = input.nextFloat();
        float var2 = input.nextFloat();
        float ans=var1+var2 ;
        String str=String.format("%.3f",ans);
        System.out.println(str);
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 3

Problem

Problem Description:

Phoenix mall in the capital city of Washington and it is rectangular in shape when it is seen on the map with the size n x m meters.

On the occasion of the jubilee anniversary, a decision was taken to pave the Square with square marbles stones. Each stone is of the size n x n.

Can you what is the least number of stones needed to pave the Square?

It's allowed to cover the surface larger than the Mall Square, but the Square has to be covered.

It's not allowed to break the stones. The sides of stones should be side by side(parallel) to the sides of the Square.

Constraints:

$1 \leq n \leq 10^9$

$1 \leq m \leq 10^9$

$1 \leq a \leq 10^9$

Input Format:

The only line of input contains three positive integer numbers n, m and a separated by a space

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
    Scanner input = new Scanner(System.in);
    int n = input.nextInt();
    int m = input.nextInt();
    int a = input.nextInt();
            System.out.println(((n+a-1)/a)*((m+a-1)/a));
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 4

Problem

Problem Description:

Nancy bought apples in a fruit shop.

The shop keeper specified the 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 specified by shop keeper.

Can you help nancy in finding it?

Constraint :

$5 \leq amtgiven \leq 2500$

$5 \leq billamt \leq 2500$

Input Format:

First Line: Integer value of amtgiven representing the amount given by nancy.

Second Line: Integer value of billamt representing the amount specified by the shop keeper

Output Format

First Line: Print the Quotient in integer format.

Second Line: Print the Remainder in integer format.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int amtgiven = input.nextInt();
		int billamt = input.nextInt();
		int Remainder=amtgiven%billamt;
		int Quotient=amtgiven/billamt;
		System.out.println("Quotient:"+Quotient);
		System.out.println("Remainder:"+Remainder);
```

```
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 5
Problem	Problem Description: 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] Constraints: 1 ≤ width ≤ 10 1 ≤ height ≤ 10 Input Format: First Line : Length of the object in Integer. Second Line : Width of the object in Integer Third Line : Height of the object in Integer Output Format:				

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int length = input.nextInt();
        int width = input.nextInt();
        int height = input.nextInt();
        System.out.println(2*(width*length+length*height+width*height));
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 6

Problem

Problem Description:

Elavenil has a chessboard with N rows and M columns. In one step, he can choose two cells of the chessboard which share a common edge (that has not been cut yet) and cut this edge.

Formally, the chessboard is *split* into two or more pieces if it is possible to partition its cells into two non-empty subsets S1 and S2 ($S1 \cap S2 = \emptyset$, $|S1|+|S2|=NM$) such that there is no pair of cells c1,c2 ($c1 \in S1, c2 \in S2$) which share a common edge that has not been cut.

Elavenil does not want the board to split into two or more pieces.

Compute the maximum number of steps he can perform while satisfying this condition.

Constraints:

$1 \leq N,M \leq 8$

Input Format:

The only line of input test case contains two space-separated integers N and M.

Output Format:

In the only line of output print an integer representing the maximum possible number of steps.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
          Scanner input = new Scanner(System.in);
          int n = input.nextInt();
          int m = input.nextInt();
          System.out.println((m-1)*(n-1));
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 7
Problem	Problem Description: The employees of one million dollar profit company TeamZilla organised the strike because they want to have additional salary increment, the strike is continuing for more than a month now. Rathik the CEO of TeamZilla has found the solution to break the strike, so he organised a small technical competition for his employees. Most of the employees who were part of the strike have participated in the technical event announced and in that there was a task of printing the ASCII Value of the character inputted. Can you help them to complete the task and win the competition? Constraint: a ≤ Asc ≤ z A ≤ Asc ≤ Z Input format: Only Line of input represents a single alphabetic character. Output format: Print the integer ASCII value corresponding to the input alphabet.				

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096{
        public static void main(String[] args) {
    Scanner input = new Scanner(System.in);
    char Asc=input.next().charAt(0);
    System.out.println(Asc-0);
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 8

Problem

Problem Description:

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?

Functional Description:

Total Bill Amount = unitconsumed ^ costperunit

Constraints:
1 ≤ unitconsumed ≤ 500
2 ≤ costperunit ≤ 10

Input Format :
The first line of input represents the integer value of unitconsumed
The second line of input represents the integer value of costperunit

Output Format:
Print the total Bill amount in single line.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int costperunit = input.nextInt();
		int unitconsumed = input.nextInt();
		System.out.println(Math.pow(costperunit,unitconsumed));
	}
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 9

Problem

Problem Description:

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?

Constraint:
$100 \leq tot\_mins \leq 550$

Input Format:

The only line of input has single value of variable tot_mins of type integer representing total minutes.

Output Format:

Print the Number of Hours and Minutes in a single line.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int tot_mins = input.nextInt();
		System.out.println(tot_mins/60 +  " Hours and " + tot_mins%60 + " Minutes");
	}
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 1 • Challenge 10

Problem

Problem Description:

Sajid was booking a train ticket from Chennai to Delhi for his family.

Two of the relatives was interested in joining that journey from different places with their family members

So, Sajid booked tickets for those persons also along with his family members.

He wants to know the total number of tickets for this travel.

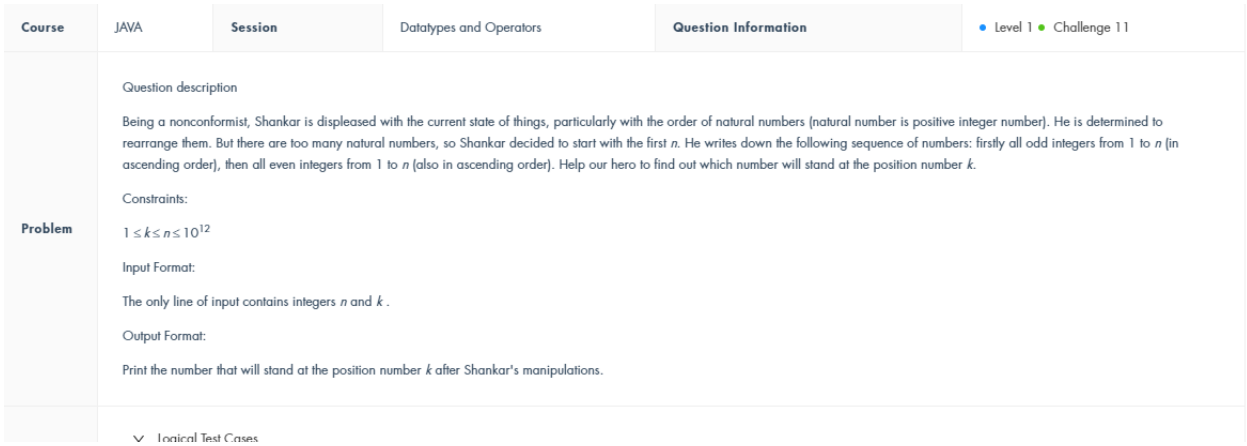
Can you help him in finding the total number of passengers?

Constraint:
$1 \leq num1 \leq 15$
$1 \leq num2 \leq 15$
$1 \leq num3 \leq 15$

Input Format:
Only Line of input has three integers num1, num2 and num3 separated by a space representing the numbers of ticket booked by Sajid at three different interval of time.

Output Format:
Print the total number of tickets booked by Sajid.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int num1=input.nextInt();
		int num2=input.nextInt();
		int num3=input.nextInt();
		System.out.println(num1+num2+num3);
	}
}
```



Course	JAVA	Session	Datatypes and Operators	Question Information	• Level 1 • Challenge 11

Problem

Question description

Being a nonconformist, Shankar is displeased with the current state of things, particularly with the order of natural numbers (natural number is positive integer number). He is determined to rearrange them. But there are too many natural numbers, so Shankar decided to start with the first n. He writes down the following sequence of numbers: firstly all odd integers from 1 to n (in ascending order), then all even integers from 1 to n (also in ascending order). Help our hero to find out which number will stand at the position number k.

Constraints:

$1 \le k \le n \le 10^{12}$

Input Format:

The only line of input contains integers n and k .

Output Format:

Print the number that will stand at the position number k after Shankar's manipulations.

Logical Test Cases

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
                Scanner sc=new Scanner(System.in);
                long n,k;
                n=sc.nextInt();
                k=sc.nextInt();
                long odds = ( n + 1 ) / 2;
    System.out.println( k <= odds ? 2 * k - 1 : 2 * ( k - odds ) );
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 2 • Challenge 1

Problem

Problem Description:
Karthik was working in the HR division of Audi.

The employees of the company were working on shifts.

The company calculates salary for the employees on the basis of employee working hours per day.

Since the number of people working in the company is huge salary calculation become a tedious process at the end of the each day.

Constraints:
1 <= hour <= 12
1 <= salaryperday <= 6000

Input Format:
The First line of the input has a single value representing the total working hours of type integer.
The Second line of the input has single value representing the salary per day of type double.

Output Format:
Print the total salary in single line with two values after decimal point.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int hour = input.nextInt();
		double salaryperday = input.nextDouble();
		System.out.println(String.format("%.2f", hour*salaryperday));
	}
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 2 • Challenge 2

Problem

Problem Description:

Issac loved to do agriculture he worked for a 9-5 job in the week days and dedicated to do agriculture on the week end.

He dreamed to combine technology and agriculture together in the future.He started with a small automated automobile that can water the plants when he is not available in the field.

He measured his field in square feet but for generalising his project he wished to convert it to acres.

Can you help him with a code that reads the area of the farmer's field in square feet and display the area in acres?
Functional Description:

There are 43,560 square feet in an acre.
Constraints:
20000.00≤tractLand≤70000.00
Input format:
Single Line of Input has a tractLand's area in square feet of type float.

Output format:
Print the input area of the tractLand in square feet and its equivalent area in acres in a single line.

Refer sample testcases for formating information

```
import java.io.*;

import java.util.Scanner;

public class Class232241010096 {

	public static void main(String[] args) {

		Scanner input = new Scanner(System.in);

		float tractLand,tractLandAcred;

		tractLand = input.nextFloat();

		tractLandAcred=tractLand/43560;

		System.out.println(tractLand + " sq.ft is equal to " +
(String.format("%.2f",tractLandAcred)) + " acres");

	}

}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 2 • Challenge 3

Problem

Problem Description:
Jannu and Preethi both went to Egypt for visiting Pyramids.

On seeing the Pyramids they were in discussion.

During the discussion Jannu asked Preethi, what will be the area of this Pyramid.

Preethi have no idea about it.

Can you help Preethi in calculating the area of this Pyramid?
Functional Description:
Area = (height * base)/2

Constraints:
1 <= height <= 500
1 <= base <= 500

Input Format:
The only line of input has two floating point values representing height and base respectively separated by a space.

Output Format:
In the only line of output print the area of the pyramid with only three values after decimal point.

```
import java.io.*;

import java.util.Scanner;

public class Class232241010096 {

	public static void main(String[] args) {

		Scanner input = new Scanner(System.in);

		float height,base;

		height = input.nextFloat();

		base = input.nextFloat();

		System.out.println(String.format("%.3f",((height*base)/2)));

	}

}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 2 • Challenge 4

Problem

Problem Description:

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:

$20000 \leq basic \leq 75000$

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.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		double basic,sal;
		basic=input.nextDouble();
		sal= ((basic/100)*80) + ((basic/100)*40) + basic;
		System.out.println(String.format("%.2f",sal));
	}
}
```

Course	JAVA	Session	IO Operations	Question Information	• Level 2 • Challenge 5

Problem

Problem Description:
Johnson was working as a Captain of the Giant Ship.

He was traveling from India to various countries around the world.

The days of the travel may differ from one country to another.

To plan the upcoming travel the Johnson captain of the ship wold like to know the travel days in the year:month:day format.

Can you help Johnson?

Constraints:
1 <= ndays <= 15000

Input Format:
The only line of input has single integer representing the number days the ship was travelling.

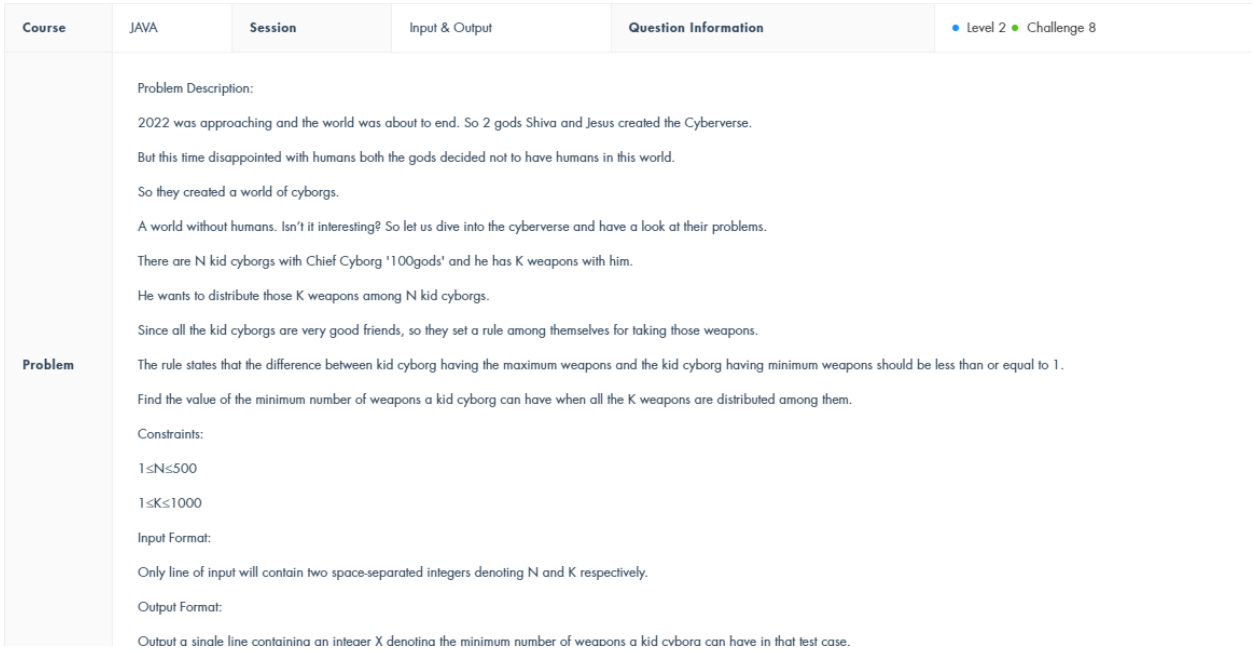
Output Format:
Print the result in the prescribed format.

Refer sample testcases for format specifications.

```
import java.io.*;

import java.util.Scanner;

public class Class232241010096 {

	public static void main(String[] args) {

		Scanner input = new Scanner(System.in);

		int ndays,y,m,d;

		ndays = input.nextInt();

		y=ndays/365;

		ndays%=365;

		m=ndays/30;

		d=ndays%30;

		System.out.println(y + " Y(s) "  + m + " M(s) " + d + " D(s)");

	}

}
```

Course	JAVA	Session	IO Operations	Question Information	• Level 2 • Challenge 6
Problem	Problem Description: Surya was used to wear a smartwatch when he was in the Treadmill and during Cycling. Surya's Smart watch displays the total workout time in seconds. But Surya would like to know the time he spent for workout in H:M:S format. Can you help surya in knowing the time he spent on workout in the prescribed format? Constraints: 1 <= sec <= 10000 Input Format: The only line of output represents the workout timing in seconds Output Format: In the only line of output print the workout timing of surya in the prescribed format. Refer sample testcases for format specification.				

```
import java.io.*;

import java.util.Scanner;

public class Class232241010096 {

	public static void main(String[] args) {

		Scanner input=new Scanner(System.in);

		int sec,h,m,s;

		sec=input.nextInt();

		s=sec%60;

		m=sec/60;

		h=m/60;

		m%=60;

		System.out.println(h + "H:" + m + "M:" + s + "S");

	}

}
```



Course	JAVA	Session	Input & Output	Question Information	• Level 2 • Challenge 8

Problem

Problem Description:

2022 was approaching and the world was about to end. So 2 gods Shiva and Jesus created the Cyberverse.

But this time disappointed with humans both the gods decided not to have humans in this world.

So they created a world of cyborgs.

A world without humans. Isn't it interesting? So let us dive into the cyberverse and have a look at their problems.

There are N kid cyborgs with Chief Cyborg '100gods' and he has K weapons with him.

He wants to distribute those K weapons among N kid cyborgs.

Since all the kid cyborgs are very good friends, so they set a rule among themselves for taking those weapons.

The rule states that the difference between kid cyborg having the maximum weapons and the kid cyborg having minimum weapons should be less than or equal to 1.

Find the value of the minimum number of weapons a kid cyborg can have when all the K weapons are distributed among them.

Constraints:

1≤N≤500

1≤K≤1000

Input Format:

Only line of input will contain two space-separated integers denoting N and K respectively.

Output Format:

Output a single line containing an integer X denoting the minimum number of weapons a kid cyborg can have in that test case.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int n = input.nextInt();
		int k = input.nextInt();
		int weapons = Math.round(k/n);
		System.out.println(weapons);
```

```
    }
}
```

Course	JAVA	Session	IO Operations	Question Information	• Level 2 • Challenge 9

Problem

Problem Description:
Arul and Kani own the farm in the beautiful location of the city were lot of cows was roaming around.

One day Arul and Kani was out of the city.

On that day cows have eaten the grasses in the farm which is circular in structure.

Whem Arul and Kani reached the location they were shocked to see the grass being eaten by crows.

Now they wold like to know for how much area and circumference of the farm the cows have eaten the grass.

Can you help them finding it.

Functional Description:
Circumference = 2*π*r
Area =π *r*r
π = 3.14

Constraints:
1.00 <=rad <=100.00

Input Format:

The only line of the input represents the radius of the circle of type float.

Output Format:
Print the area in the first line and circumference in the second line with only 2 values after decimal point

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
                double rad = sc.nextDouble();
                double area=Math.PI*rad*rad;
                double circumference=2*Math.PI*rad;
```

```
            System.out.println(String.format("%.2f", area));
            System.out.println(String.format("%.2f", circumference));
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 2 • Challenge 10

Problem

Problem Description:

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?

Constraint:

$20.00 \leq \text{length} \leq 100.00$

$20.00 \leq \text{width} \leq 100.00$

Input format:
First Line:has single floating point number representing length of the room
Second Line:has single floating point number representing width of the room

Output format:
Print the area of the room in square feet.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
            Scanner input = new Scanner(System.in);
            float length,width,area;
            length = input.nextFloat();
            width = input.nextFloat();
            System.out.println(String.format("%.2f",length*width) + " sq.ft");
```

```
    }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 1
Problem	Problem Description: Arav was a popular maths trainer, he gave a 4 digit number to his students as an assignment . The Students has to identify ones portion of given number. But students are confused with the logic for doing so. Can you help the students with the appropriate logic? Constraint: 1000 ≤ num ≤ 2600 Input Format: Only line of input has a single integer representing "num"; Output Format: Print the Digit at one's place Explanation : Let us say Aarav given a number "7821" then the number at one place is "1"				

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int num = input.nextInt();
          System.out.println(num%10);
    }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 2

Problem

Problem Description:

Shiva is part of the popular construction company in Tamilnadu.

They constructed an apartment on the express highway.

The apartment is Trapezium in size.

Shiva is part of budget estimation team so he would like to calculate the Area of that apartment.

Can you help him?

Constraints:

$1 \leq base1 \leq 500$

$1 \leq base2 \leq 500$

$1 \leq height \leq 500$

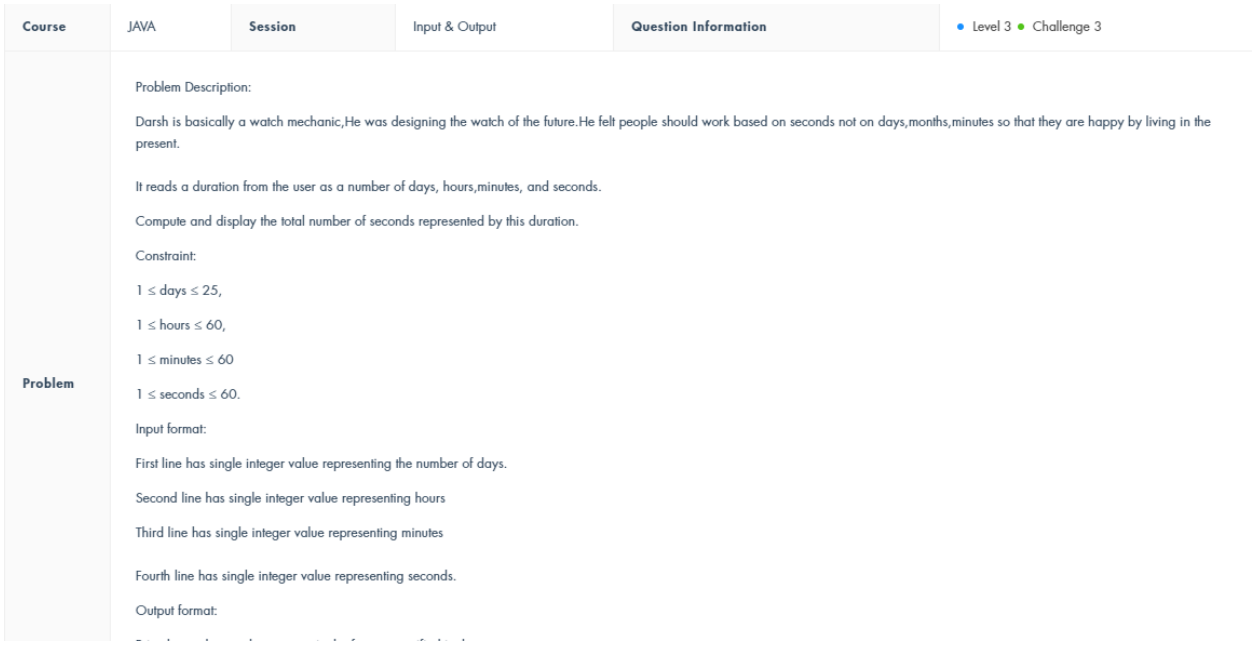
Input Format:

Only Line of input has three floating point values representing base1 base 2 and height separated by a space

Output Format:

Print the area of the apartment in a single line with two values after decimal point.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		double base1 = input.nextDouble();
		double base2 = input.nextDouble();
		double height = input.nextDouble();
		System.out.println(String.format("%.2f",((base1+base2)/2)*height));
	}
}
```



Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 3

Problem

Problem Description:

Darsh is basically a watch mechanic,He was designing the watch of the future.He felt people should work based on seconds not on days,months,minutes so that they are happy by living in the present.

It reads a duration from the user as a number of days, hours,minutes, and seconds.

Compute and display the total number of seconds represented by this duration.

Constraint:

1 ≤ days ≤ 25,

1 ≤ hours ≤ 60,

1 ≤ minutes ≤ 60

1 ≤ seconds ≤ 60.

Input format:

First line has single integer value representing the number of days.

Second line has single integer value representing hours

Third line has single integer value representing minutes

Fourth line has single integer value representing seconds.

Output format:

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int days = input.nextInt();
		int hours = input.nextInt();
		int minutes = input.nextInt();
		int seconds = input.nextInt();
		hours= hours + (days*24);
		minutes= minutes + (hours*60);
		seconds= seconds + (minutes*60);
		System.out.println(seconds + " seconds");
	}
```

}

Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 5

Problem

Problem Description:

ArulMozhivarman and his wife Yazhini loves to travel around the world. As a part of their epic journey they together spent 1 year in various states of United States and after 1 year they traveled to Canada.

Usually in United States fuel efficiency for vehicles is normally expressed in MilesPer Gallon(MPG).

But in Canada, fuel efficiency is normally expressed in Liters Per Hundred Kilometers (L/100 km).

ArulMozhivarman and his wife Yazhini were little bit confused in calculating the fuel efficiency of the vechicles they for their daily travels and they feel if there is portal for converting the fuel efficiency in MPG to L/100 km then their life will be much more easier.

Can you help them with the fuel efficiency conversion portal so that they can enjoy their time together without working about the fuel efficiency of their vehicles?

Functional Description:

1 MPG = 235.215 L/100 km

Constraints:

1≤mpg<150

Input Format

Only line of input has single integer value representing the fuel efficiency in MPG.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int mpg = input.nextInt();
		System.out.println(String.format("%.2f",235.215 / mpg) + " L/100 km");
	}
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 6

Problem

Problem Description:

Madhan was working as a loco pilot in the Indian railways.

He was traveling from one state to another state by train.

The default distance calculation machine shows the total traveling distance in kilometres.

But Madhan would like to know the distance in Meters, Feet, Inches, Centimeters

Can you provide him the distance in as he requests?

Constraints: 1 <= distance <= 20000

Input Format:

Only line of input has single floating point value representing the total kilometres driven by Madhan

Output Format:

Print the distance in Meters, feet, inches and centimetres in a separate line respectively.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		double distance = input.nextDouble();
		System.out.println(String.format("%.2f",distance * 1000) + " m");
		System.out.println(String.format("%.2f",distance * 3280.84) + " ft");
		System.out.println(String.format("%.2f",distance * 39370.1) + " in");
		System.out.println(String.format("%.2f",distance * 100000) + " cm");
	}
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 7

Problem

Problem Description

Ford once was going down by loosing all their share values due to the less innovative employees in their company.They wanted to win their competitor named Ferrari.They recruited a car mechanic who has the capability to build a racing car.

The car mechanic estimated a time in seconds which will be taken to construct a race car,But the professionals in Ford wanted the exact time in D:HH:MM:SS, (where D, HH, MM, and SS represent days, hours, minutes and seconds respectively) to be convinced for funding.

Help them with a suitable logic that can help the car mechanic to convince Ford company.

Constraints:

100 ≤ seconds ≤ 455000

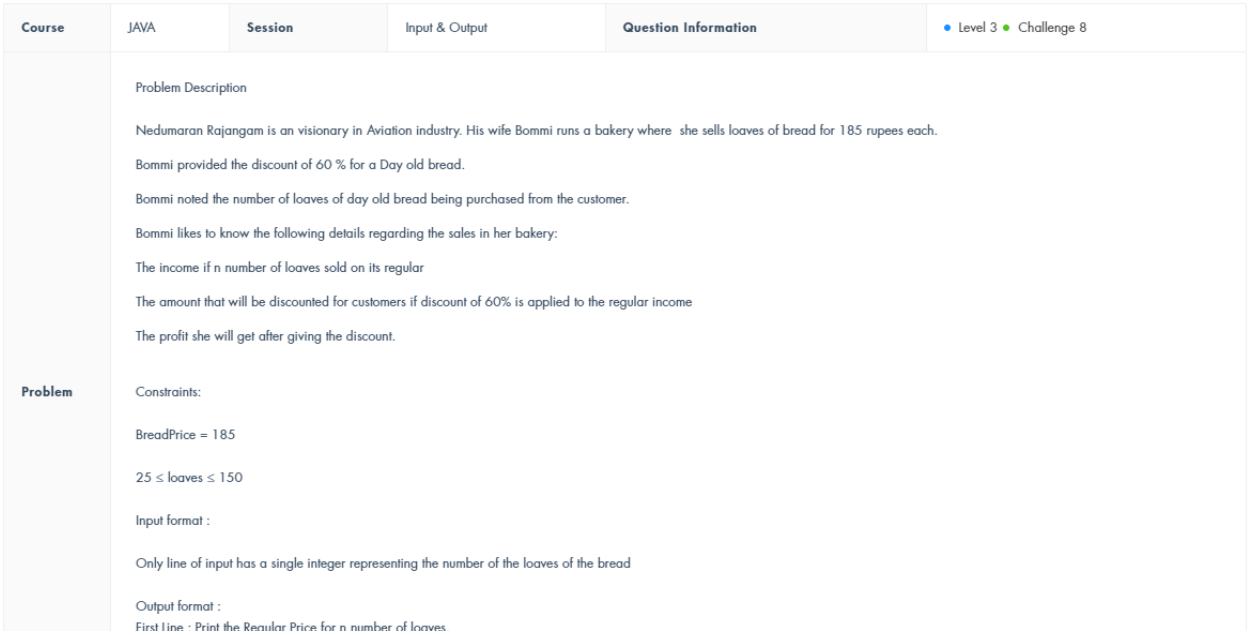
Input Format:
The Only line of input has single value representing the duration in seconds.

Output Format:
Print the duration in days, hours, minutes and seconds in format.

Refer sample test cases for format specification.

```
import java.io.*;

import java.util.Scanner;

public class Class232241010096 {

	public static void main(String[] args) {

		Scanner input = new Scanner(System.in);

		int seconds = input.nextInt();

		int days,hours,minutes;

		minutes=seconds/60;

		seconds= seconds%60;

		hours=minutes/60;

		minutes=minutes%60;

		days=hours/24;

		hours=hours%24;

		System.out.println("The Duration is " + days + " days " + hours + " hours " + minutes + " minutes " + seconds + " seconds");
```

```
    }
}
```



Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 8

Problem

Problem Description

Nedumaran Rajangam is an visionary in Aviation industry. His wife Bommi runs a bakery where she sells loaves of bread for 185 rupees each.

Bommi provided the discount of 60 % for a Day old bread.

Bommi noted the number of loaves of day old bread being purchased from the customer.

Bommi likes to know the following details regarding the sales in her bakery:

The income if n number of loaves sold on its regular

The amount that will be discounted for customers if discount of 60% is applied to the regular income

The profit she will get after giving the discount.

Constraints:

BreadPrice = 185

25 ≤ loaves ≤ 150

Input format :

Only line of input has a single integer representing the number of the loaves of the bread

Output format :

First Line : Print the Regular Price for n number of loaves.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
        public static void main(String[] args) {
                Scanner input = new Scanner(System.in);
                int loaves = input.nextInt();
                int reg= loaves * 185;
                float dis= (reg*60)/100;
                float amt=reg-dis;
                System.out.println("Regular Price=" + reg);
                System.out.println("Amount Discounted=" + String.format("%.2f",dis));
                System.out.println("Amount to be paid=" + String.format("%.2f",amt));
        }
}
```

Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 9
Problem	Problem Description: Nancy is a data scientist. She regularly faces about Terra bytes of data in her work . One day she was working on an application that collects users address and stores it based on the type of field it has to be . Unfortunately the application malfunctioned and the data collapsed . Nancy now has the burden of arranging the users data into their respective field can you help her ? Constraint: 0000 ≤ hno ≤ 9999 100000 ≤ pincode ≤ 999999 1000 ≤ employeeID ≤ 9999 000 ≤ areacode ≤ 999 Input Format: First line of input represents hno Second line of input represents pincode Third line of input represents employeeID Fourth line of input represents areacode				

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int hno = input.nextInt();
		int pincode = input.nextInt();
		int employeeID = input.nextInt();
		int areacode = input.nextInt();
		System.out.println("EmployeeID : " + employeeID);
	System.out.println("Area Code : " + areacode);
	System.out.println("House Number : " + hno);
	System.out.println("Pincode : " + pincode);
	}
```

}

Course	JAVA	Session	Input & Output	Question Information	• Level 3 • Challenge 10

Problem

Problem Description:

Vinod is part of Great Indian Survey NGO who were collecting peoples year of birth for the detailed analysis on that particular year's population.

After a month long travel they have collected lakh's of people data from the eastern states of India.

Now Vinod need to extract the last two digits of the people's year from the data they have for documentation purpose.

Since the samples are in huge numbers it is difficult for Vinod to single handly do that.

Can you help Vinod in completing the extraction process early?

Constraints:

1901≤year<2021

Input Format:

The only line of input has single integer representing the year of birth of individual.

Output Format:

Print the last two digits of the year as output.

```
import java.io.*;
import java.util.Scanner;
public class Class232241010096 {
	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		int year = input.nextInt();
		int yr = year%100;
		System.out.println(yr);
	}
}
```