Final Exam (Python Batch, Intermediate)

Instructions:

- Answer all questions
- Think TWICE, Then Answer
- Code Documentation is OPTIONAL, but following that you can achieve bonus points
- Use a .txt text file for short questions, and separate .py files for each Python file. Naming conventions must be maintained. SEE Tutorial Video for that.
- Enjoy your exam, BEST OF LUCK :-)

Part A: Short Questions

1. Write a python code where you will take two inputs a and b and calculate the perimeter of a rectangle.

2. Take input (INTEGER) from the user and print whether the number is EVEN or ODD.

3. Take an integer input which is considered as Kilometer Per Hour (KMPH) and now convert the KMPH to MPH. {0.6214*KMPH}

4. If you know the “CRUD” operation, explain U and R with examples.

5. Show an example of Splitting the string based on Hash Tag (#).
   example: text = “Omar#Hasan” , output text = [“Omar”,”Hasan”]

Part B: Coding

Problem No. 1:

Read the four values corresponding to the x and y axes of two points in the plane, p1 (x1, y1) and p2 (x2, y2) and calculate the distance between them, showing four decimal places after the comma, according to the formula:

Distance = $\sqrt{(x2 - x1)^2 + (y2 - y1)^2}$

Input

The input file contains two lines of data. The first one contains two double values: ***x1 y1*** and the second one also contains two double values with one digit after the decimal point: ***x2 y2***.

Output

Calculate and print the distance value using the provided formula, with 4 digits after the decimal point.

Input Sample	Output Sample
1.0 7.0 5.0 9.0	4.4721
-2.5 0.4 12.1 7.3	16.1484

Problem No. 2:

Read an integer number that is the code number for phone dialing. Then, print the destination according to the following table:

DDD	Destination
61	Brasilia
71	Salvador
11	Sao Paulo
21	Rio de Janeiro
32	Juiz de Fora
19	Campinas
27	Vitoria
31	Belo Horizonte

If the input number isn't found in the above table, the output must be:
DDD nao cadastrado
That means "DDD not found" in Portuguese language.

Input

The input consists in a unique integer number.

Output

Print the city name corresponding to the input DDD. Print *DDD nao cadastrado* if doesn't exist corresponding DDD to the typed number.

Input Sample	Output Sample
11	Sao Paulo

Problem No. 3:

Write a program that keep reading a password until it is valid. For each wrong password read, write the message "Senha inválida". When the password is typed correctly print the message "Acesso Permitido" and finished the program. The correct password is the number 2002.

Input

The input file contains several tests cases. Each test case contains only an integer number.

Output

For each number read print a message corresponding to the description of the problem.

Input Sample	Output Sample
2200	Senha Invalida
1020	Senha Invalida
2022	Senha Invalida
2002	Acesso Permitido

END