- munna's academy programming contest is a timed event that brings together budding programmers and problem solvers from various educational institutions to compete, learn, and grow. This contest is designed for students who are passionate about coding and eager to test their skills in a challenging environment.

MAPC | munna's academy programming contest

A. Magic Triangle

Problem:
Check if three given numbers can form the sides of a right-angled triangle using the Pythagoras theorem.

Input:
Three integers representing the sides of the triangle.
Output:
Print "Right-angled triangle" or "Not a right-angled triangle."

Test Cases:

- **Input:** `3 4 5`
  Output: `Right-angled triangle`
- **Input:** `5 6 7`
  Output: `Not a right-angled triangle`

B. Distance Between Two Points

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, according to the formula:

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

Input

The input file contains two lines of data. The first one includes 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 decimal places.

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

C.

Problem:
A number is called a perfect number if it is equal to the sum of its proper divisors. Write a program to check if a given number N is a perfect number.

Input:
An integer N.

Output:
Print "Perfect Number" or "Not a Perfect Number."

Test Cases:

- Input: `28`
  Output: `Perfect Number`
- Input: `10`
  Output: `Not a Perfect Number`

D. Nth Term in Arithmetic Progression (AP)

Problem:
Given the first term aaa, common difference d, and term position n, find the n-th term of the arithmetic progression.

Input:
Three integers a, d, and n.

Output:
Print the n-th term.

Test Cases:

- **Input:** `2 3 5`
  Output: `14`
- **Input:** `1 2 10`
  Output: `19`

E. Generate Pascal's Triangle

Problem:

Generate the first n rows of Pascal's Triangle.

Input:

An integer n.

Output:

Print the Pascal's Triangle row by row.

Test Cases:

Input: 4

Output:

Copy code

```
1
1 1
1 2 1
1 3 3 1
```

Input: 5

Output:

Copy code

```
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
```