

# 29 Hexagons

23 points

## Introduction

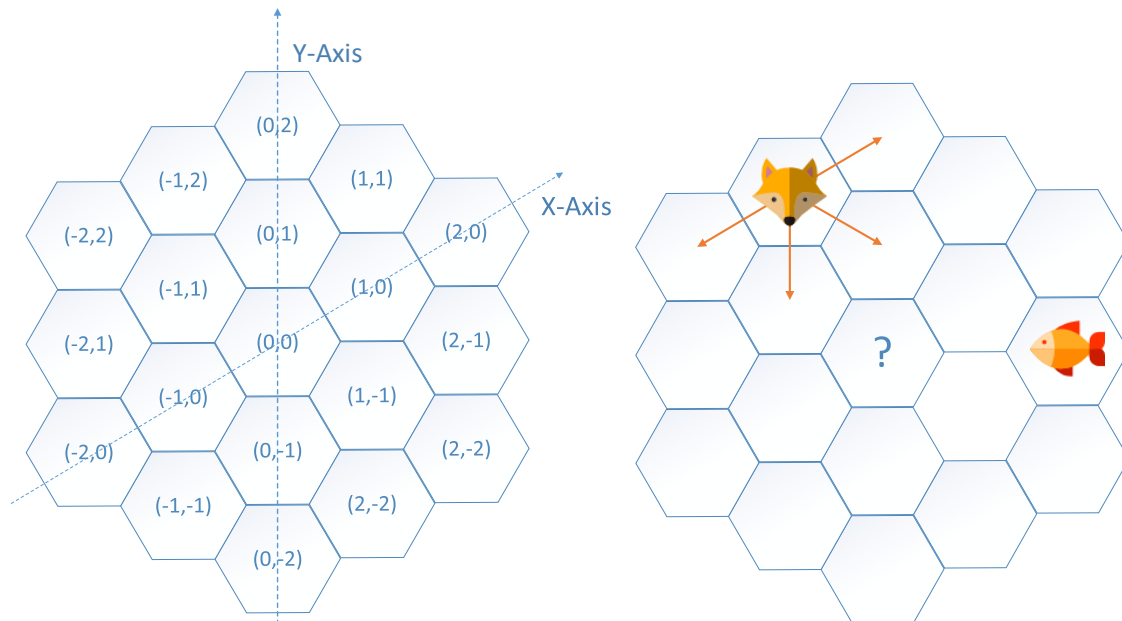
Clusters of hexagonal columns known as the Giant's Causeway can be found along the coast of Northern Ireland. Legends claim the causeway was built by Irish giant Finn MacCool, who had been challenged to a fight by Scottish giant Benandonner.



The columns vary in height, and some have a small hole in the top. When the waves break with the columns, sometimes fishes get trapped in the holes.

Foxes live in the area, and they love to eat fish. To get the trapped fishes, a fox has to move above the columns. Each fox has two characteristics: the maximum jump, and the maximum fall it can survive. A fox only can jump to a near hexagon if its differential height is less or equal to its maximum jump, and only can fall to a near hexagon if the differential height is less or equal to its maximum fall it can survive.

We can identify each hexagonal column using a  $(x,y)$  notation using the following convention:



We want to know if a fox positioned in a certain hexagon is able to get a certain fish.

### Input

- Multiple lines, each one with a hexagon x,y coordinates and its height
- Line with end character #
- Multiple lines, each one with the maximum jump, the maximum fall and the fox and the fish coordinates

### Output

For each line with a fox and fish description:

- If exists a path: "The fox says: what a delicious fish!"
- If not: "The fish says: not today, little fox!"

## Example

### Input

```
0 0 0
0 1 1
0 2 2
0 3 5
0 4 0
#
0 0 0 0 0 0
1 1 0 0 0 2
1 1 0 0 0 3
3 1 0 0 0 3
3 1 0 0 0 4
3 5 0 0 0 4
```

### Output

```
The fox says: what a delicious fish!
The fox says: what a delicious fish!
The fish says: not today, little fox!
The fox says: what a delicious fish!
The fish says: not today, little fox!
The fox says: what a delicious fish!
```