using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_02\_LadyBugs

{

public class LadyBugs

{

public static void Main()

{

var dim = int.Parse(Console.ReadLine());

var field = new int[dim];

for (int i = 0; i < dim; i++)

{

field[i] = 0;

}

var bugIndexes = Console.ReadLine()

.Split(' ')

.Select(int.Parse)

.ToArray();

for (int j = 0; j < bugIndexes.Length; j++)

{

if (bugIndexes[j] >=0 && bugIndexes[j] < field.Length)

{

field[bugIndexes[j]] = 1;

}

}

var fly = Console.ReadLine();

while (fly != "end")

{

var flySplit = fly.Split(' ').ToArray();

var index = int.Parse(flySplit[0]);

var direction = flySplit[1];

var hops = int.Parse(flySplit[2]);

if (index >= 0 && index < field.Length && field[index] == 1)

{

field[index] = 0;

var newIndex = GetNewIndex(index, direction, hops);

while (newIndex >= 0 && newIndex < field.Length)

{

if (field[newIndex] == 0)

{

field[newIndex] = 1;

break;

}

else

{

newIndex = GetNewIndex(newIndex, direction, hops);

}

}

}

fly = Console.ReadLine();

}

Console.WriteLine(String.Join(" ", field));

}

public static int GetNewIndex(int index, string direction, int hops)

{

var nextIndex = index;

if (direction == "right")

{

nextIndex += hops;

}

else if (direction == "left")

{

nextIndex -= hops;

}

return nextIndex;

}

}

}