There are some people and cats in a house. You are given the number of legs they have all together. Your task is to return an array containing every possible number of people that could be in the house *sorted in ascending order*. It's guaranteed that each person has 2 legs and each cat has 4 legs.

**Example**

* For legs = 6, the output should be  
  houseOfCats(legs) = [1, 3].

There could be either 1 cat and 1 person (4 + 2 = 6) or 3 people (2 \* 3 = 6).

* For legs = 2, the output should be  
  houseOfCats(legs) = [1].

There can be only 1 person.

**Input/Output**

* **[time limit] 3000ms (cs)**
* **[input] integer legs**

The total number of legs in the house.

*Constraints:*  
0 ≤ legs ≤ 45.

* **[output] array.integer**

Every possible number of people that can be in the house.

<https://codefights.com/arcade/code-arcade/well-of-integration/RaWLwT2eb96hp4N5Z>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static int[] houseOfCats(int legs)

{

List<int> ans = new List<int>();

int ini = legs % 4==0 ? 0 : 1;

for (int i = ini; ; i += 2)

{

ans.Add(i);

if (legs / 2 == i)

{

break;

}

}

return ans.ToArray();

}

static int[] houseOfCats(int legs)

{

List<int> ans = new List<int>();

int i, ini = legs % 4==0 ? 0 : 1;

for ( i = ini; legs / 2 != i; i += 2)

{

ans.Add(i);

}

ans.Add(i);

return ans.ToArray();

}

static void Main(string[] args)

{

foreach (int elem in houseOfCats(8))

{

Console.Write(elem + " ");

}

Console.ReadLine();

}

}

}