Author

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https://codefights.com/img/coins_new.png2000

Mr. Privalov has a number k and an array of nelements, each element of which is the power of 2 and doesn't exceed 2k. All powers from 20 to 2k are appear in the array (maybe even more than once) except one, which Mr. Privalov wants to find.

Your task is find Mr.Privalov to find a missed power.

**Example**

* For k = 1, n = 2 and arr = [1, 1], the output should be  
  powersOfTwo(k, n, arr) = 2;
* For k = 3, n = 3 and arr = [8, 4, 2], the output should be  
  powersOfTwo(k, n, arr) = 1.
* **[time limit] 3000ms (cs)**
* **[input] integer k**

The maximum power of two.

*Constraints:*  
1 ≤ k ≤ 30.

* **[input] integer n**

Array length.

*Constraints:*  
1 ≤ n ≤ 100.

* **[input] array.integer arr**

Array of powers of two. It is guaranteed that the length of the array is n, all its elements are powers of two not greater than 2k, and there is exactly one missing power in it.

* **[output] integer**

The missing power.

<https://codefights.com/challenge/9N79YC9r2zJdejDze/main?utm_source=challengeOfTheDay&utm_medium=email&utm_campaign=email_notification>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static int powersOfTwo(int k, int n, int[] arr)

{

for (int p = 0; p <= k; p++)

{

if (!arr.Contains((int)Math.Pow(2, p)))

{

return (int)Math.Pow(2, p);

}

}

return -1;

}

static void Main(string[] args)

{

int k = 5;

int n= 10;

int[] arr = {32, 16, 32, 16, 4, 4, 2, 1, 4, 32};

Console.WriteLine(powersOfTwo(k, n, arr));

Console.ReadLine();

}

}

}