DeerCoders Season 1 – Session 2

**Question**

# Initial Condition and Constraints

There are N windows and K thieves.

All the windows are closed.

0 < Number of windows (N) < 101

0 <= Number of thieves (K) <= N

# Plot

**Night 1:** The 1st thief visits every window and toggles the window. (i.e. If the window is open it gets closed and vice versa)

**Night 2**: The 1st thief again visits every window and toggles the window. The 2nd thief comes and toggles every 2nd (i.e. 2, 4, 6 ) window.

**Night 3:** The 1st thief again visits every window and toggles the window. The 2nd thief comes and toggles every 2nd window. The 3rd thief comes and toggles every 3rd (i.e. 3, 6, 9, ….) window.

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**Night K:** The 1st thief again visits every window and toggles the window. The 2nd thief comes and toggles every 2nd window. The 3rd thief comes and toggles every 3rd window…………….The kth thief comes and toggles every kth window.

# Input

Program should ask for two inputs N and K and it should pass below test cases.

# Output

Program should display all the windows’ numbers that are open.

# Test Cases

|  |  |  |
| --- | --- | --- |
| **Input** | | **Output** |
| **Windows** | **Thieves** |
| 3 | 3 | 1 2 |
| 23 | 21 | 1 2 4 8 9 16 18 23 |

**Date: September 17, 2014**