# Army Game

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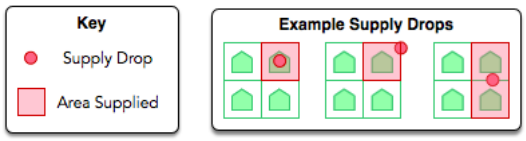
Problem Submissions Leaderboard Discussions Editorial

Luke is daydreaming in Math class. He has a sheet of graph paper with $n$ rows and $m$ columns, and he imagines that there is an army base in each cell for a total of $n \cdot m$ bases. He wants to drop supplies at strategic points on the sheet, marking each drop point with a red dot. If a base contains at least one package inside or on top of its border fence, then it's considered to be supplied. For example:




Given $n$ and $m$, what's the minimum number of packages that Luke must drop to supply all of his bases?

**Input Format**

Two space-separated integers describing the respective values of $n$ and $m$.

**Constraints**

- $0 < n, m \leq 1000$

**Output Format**

Print a single integer denoting the minimum number of supply packages Luke must drop.

**Sample Input 0**

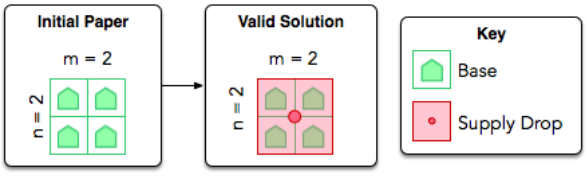
```
2 2
```

**Sample Output 0**

```
1
```

**Explanation 0**

Luke has four bases in a $2 \times 2$ grid. If he drops a single package where the walls of all four bases intersect, then those four cells can access the package:




Because he managed to supply all four bases with a single supply drop, we print $1$ as our answer.

Submissions: 821
Max Score: 10
Difficulty: Easy

Rate This Challenge:
Thanks!

More

C#

```
using System;
using System.Collections.Generic;
using System.IO;
using System.Linq;
class Solution {

    static void Main(String[] args) {


        string[] input = Console.ReadLine().Split(' ');
            int n = int.Parse(input[0]);
            int m = int.Parse(input[1]);


            if (n == 0 || m == 0)
            {
                Console.WriteLine(0);
            }

            else if (n >= 2 && m >= 2)
            {
                int n_copia = n, m_copia = m;

                int restoFila = 0;
                if (n % 2 != 0)
                {
                    n--;
                    restoFila = 1;
                }
                int restoCol = 0;
                if (m % 2 != 0)
                {
                    m--;
                    restoCol = 1;

                }

                double prod = (n * m) / 4;
                //Console.WriteLine(prod);

                if (restoFila == 1)
                {
                    restoFila = m_copia;
                }
                if (restoCol == 1)
                {
                    restoCol = n_copia;
                }

                int res = (int)prod + (int)(restoFila / 2) + (restoFila % 2) + (int)(restoCol / 2) + (restoCol % 2);

                if (restoFila > 1 && restoCol > 1)
                {
                    res--;
                }

                Console.WriteLine(res);
            }
            else
            {
```

```
61                 if (m == 1)
62                 {
63                     Console.WriteLine((int)((n / 2) + (n % 2)));
64                 }
65                 else if (n == 1)
66                 {
67                     Console.WriteLine((int)((m / 2) + (m % 2)));
68                 }
69
70             }
71
72
73
74
75
76     }
77 }
78
```

Line: 71 Col: 1

Upload Code as File  Test against custom input  Run Code  Submit Code

## Congrats, you solved this challenge!

- ✔ Test Case #0
- ✔ Test Case #1
- ✔ Test Case #2
- ✔ Test Case #3
- ✔ Test Case #4
- ✔ Test Case #5
- ✔ Test Case #6
- ✔ Test Case #7
- ✔ Test Case #8
- ✔ Test Case #9
- ✔ Test Case #10
- ✔ Test Case #11
- ✔ Test Case #12
- ✔ Test Case #13
- ✔ Test Case #14
- ✔ Test Case #15
- ✔ Test Case #16
- ✔ Test Case #17
- ✔ Test Case #18
- ✔ Test Case #19
- ✔ Test Case #20
- ✔ Test Case #21
- ✔ Test Case #22

Next Challenge