Office Organization

Your office becomes full of documents. You currently have **N** units of documents on your office, and your father demands that you have exactly **M** units of documents left by the end of the day (M < N). The only hope for you now is to ask help from your brother and sister.

Your sister offers that she can reduce your documents **by half** for **$A** (**rounding down** when necessary).

Your brother offers that he can reduce your entire documents **by one unit** for **$B**

Note that work can never be reduced to less than 0.

Given N, M, A and B, your task is to find the **minimum costs** in **MOST EFFICIENT WAY** to organize your office to meet your father's needs.

Function to Implement

```
public static int OrganizeTheOffice(int N, int M, int A, int B)
```

`OfficeOrganization.cs` includes this method.

Example

N = 100, M = 5, A = 10, B = 1 Output = 37

N = 100, M = 5, A = 5, B = 2 Output = 22

C# Help

Creating 1D array

```
int [] array1D = new int [size]
```

Creating 2D array

```
int [,] array2D = new int [size1, size2]
```

Getting the size of 1D array

```
int size = array1D.GetLength(0);
```

Getting the size of 2D array

```
int size1 = array2D.GetLength(0);

int size2 = array2D.GetLength(1);
```

Sorting single array

Sort the given array "items" in ascending order

```
Array.Sort(items);
```

Sorting parallel arrays

Sort the first array "master" and re-order the 2nd array "slave" according to this sorting

```
Array.Sort(master, slave);
```