This part I will show how to use six examples below to test my codes. These examples contain almost every kind of case, which is illustrated below:

**Example1:**

**Input:** A1= {3,9,7,8,2,6,5,10,1,7,6,4}

M1=3

**Output:** G1= {3,4,5}

**Note:** The input is the same with the project request.

**Example2:**

**Input:** A2= {5,4,15,13,2,4,20,9,2,4}

M2=10

**Output:** G2= {1,1,1,1,1,1,1,1,1,1}

**Note:** The number of groups is the equal to the size of array A2.

**Example3:**

**Input:** A3= {5,19,5,71,20,13}

M3=1

**Output:** G3= {6}

**Note:** The number of groups is 1.

**Example4:**

**Input:** A4= {3,8,50,1,3,44,12,5,9,32,9,7}

M4=6

**Output:** G4= {3,3,1,2,1,2}

**Example5:**

**Input:** A5= {5,7,3,4,8,1,20,4,5,13,8,10,6,9,12,3,6,14,11,5}

M5=5

**Output:** G5= {6,3,3,4,4}

**Example6:**

**Input:** A6= {2,5,4,8}

M6=0

**Output:** The input factors are not correct!

The array does not exist!

**Note:** The number of groups is 0 (It is not a correct factor).

And my result of codes is as following:

