**[Max rectangle](https://practice.geeksforgeeks.org/problems/max-rectangle/1)**

Given a binary matrix **M**of size **n X m**. Find the maximum area of a rectangle formed only of **1s** in the given matrix.

**Example 1:**

**Input:**

n = 4, m = 4

M[][] = {{0 1 1 0},

{1 1 1 1},

{1 1 1 1},

{1 1 0 0}}

**Output:** 8

**Explanation:** For the above test case the

matrix will look like

0 1 1 0

1 1 1 1

1 1 1 1

1 1 0 0

the max size rectangle is

1 1 1 1

1 1 1 1

and area is 4 \*2 = 8.

**Your Task:**  
Your task is to complete the function **maxArea** which returns the maximum size rectangle area in a binary-sub-matrix with all 1’s. The function takes 3 arguments the first argument is the Matrix M[ ] [ ] and the next two are two integers n and m which denotes the size of the matrix M.

**Expected Time Complexity** : O(n\*m)  
**Expected Auixiliary Space** : O(m)

**Constraints:**  
1<=n,m<=1000  
0<=M[][]<=1  
  
**Note:**The **Input/Ouput** format and **Example** given are used for system's internal purpose, and should be used by a user for **Expected Output** only. As it is a function problem, hence a user should not read any input from stdin/console. The task is to complete the function specified, and not to write the full code.