

Maximum size rectangle binary sub-matrix with all 1s

Given a binary matrix, find the maximum size rectangle binary-sub-matrix with all 1's.

Example:

Input:

0 1 1 0

1 1 1 1

1 1 1 1

1 1 0 0

Output :

8

Explanation :

The largest rectangle with only 1's is from

(1, 0) to (2, 3) which is

1 1 1 1

1 1 1 1

Input:

0 1 1

1 1 1

0 1 1

Output:

6

Explanation :

The largest rectangle with only 1's is from

(0, 1) to (2, 2) which is

1 1

1 1

1 1