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PA2

widthCut:

$i=0, j=\text{min element of } M[0]$

$\text{widthCut}(i, j, M) = \begin{cases} M[i][j] & \text{if } (i==M.\text{length}-1) \\ \text{Infinity} & \text{if } (j<0 \text{ or } j>M[0].\text{length}) \\ \text{cost}[i][j] + \min(M[i+1][j], M[i+1][j+1], M[i+1][j-1]) & \text{otherwise} \end{cases}$

stichCut:

$i=M.\text{length}-1, j=M[0].\text{length}-1$

$\text{stichCut}(i, j, M) = \begin{cases} \text{min element of } M[0] & \text{if } (i==0 \text{ and } j==0) \\ \text{Infinity} & \text{if } (i<0 \text{ and } j<0) \\ \text{cost}[i][j] + \min(M[i-1][j], M[i-1][j-1], M[i][j-1]) & \text{otherwise} \end{cases}$

DP StitchCut - $O(mn)$

DP WidthCut - $O(mn)$