

CLRS 15-1

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September 24, 2008

Let $b[i, j]$ be the length of the shortest bitonic path $P_{i,j}$:

$$b[0, 1] = |p_0 p_1| \tag{1}$$

$$i < j - 1 \rightarrow b[i, j] = b[i, j - 1] + |p_{j-1} p_j| \tag{2}$$

$$b[j - 1, j] = \min_{0 \leq k < j-1} \{b[k, j - 1] + |p_k p_j|\} \tag{3}$$

$$b[n, n] = b[n - 1, n] + |p_{n-1} p_n| \tag{4}$$

Let $r[i, j]$ be the index of the immediate predecessor of p_j .