\( k_{\text{max}} = \log(d(i,j)) \)

\( k = k_{\text{max}} \)

Is \( d(i,j) = 2^k \times \frac{d(i-k, j-k)}{d(i-k, j-k)} \)?

\( \text{Yes} \)

(i-k to i) matches with (j-k to j).
Length of the identical segment = k

\( \text{No} \)

\( k = k - 1 \)