

Original:

Given a 3-interval setting of discretizing the price change series, we will be able to produce some sets of stock sequences, like the following examples of stock a and b:

$$S_a = \{U, N, N, D, D, D, U, D, N, U, U, N, U, D\}$$

$$S_b = \{N, N, D, D, D, U, D, N, N, U, U, N, U, D\}$$

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$$S_b = \{N, N, D, U, D, N, N, U, U, N, U, D\}$$

Original:

subsequence, identical sequences which is not linked together should also be considered, as follows:

$$S_a = \{U, \{N, N, D, D, D, U, D\}, \{N, U, U, N, U, D\}\}$$

$$S_b = \{\{N, N, D, D, D, U, D\}, N, \{N, U, U, N, U, D\}\}$$

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Original:

The above result shows that the two stocks have a similar motif with timespan equals 13, instead of 6. This value is also known as the length of the longest common subsequence.

$$lcs(S_a, S_b) = 13$$

Edited:

The above result shows that the two stocks have a similar motif with timespan equals 11, instead of 6. This value is also known as the length of the longest common subsequence.

$$lcs(S_a, S_b) = 11$$