# Spearman's Rank-Order Correlation

**Introduction**

The Spearman correlation coefficient, *scc*, between two ranks of sequences ranges from +1 to -1. An *scc* at +1 indicates a complete association between such two ranks. The -1 indicates negative association completely between the ranks. Meanwhile the 0 of *scc* indicates no association between ranks. The *scc* in the case of the all data are distinct between two sequences with equal size, *s1 =* <*s11, s12, s13, … s1n*> and *s2 =* <*s21, s22, s23, … s2n*> can be computed as follows.

Where *di* = rank(*s1i*) – rank(*s2i*), rank(*sxi*) is the ranking of *sxi* in *sx* descendingly started from 1 to *n*.

For example, given *s1 =* <*56, 75, 45, 71, 62, 64, 58, 80, 76, 61*> *and s2 =*<*66, 70, 40, 60, 65, 56, 59, 77, 67, 63*>, the *scc* is 0.66.

**Question**

Given two sequences, determine whether the Spearman correlation coefficient is Positive, Negative, or Zero.

### Input:

*m* pairs of sequences. Each pair contains two sequences of size *n*, one sequence per one line. The first and second line in a pair is the first and second sequence respectively. The assumption is that, all the data within any sequence is distinct, and each pair of sequences always has the same size.

### Output:

There are *m* lines of output, each line of the output contains Positive, Negative, or Zero result of the Spearman correlation coefficient.

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| **Sample Input** | **Sample Output** |
| 56, 75, 45, 71, 62, 64, 58, 80, 76, 61  66, 70, 40, 60, 65, 56, 59, 77, 67, 63  1 2 3  1 2 3  10 20 30 40 50  50 40 30 20 10 | Positive  Positive  Negative |