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Program description

This program takes in 2 square matrices that have the same dimensions and computes the product matrix using the Strassen's algorithm. The program outputs the input matrices and the product matrices to standard output. The number of multiplications used while executing the Strassen's algorithm and the ordinary matrix multiplication are also recorded and printed to the output.

This script uses python3 and was written using the Spyder IDE

The input file must use the following format:
Order
Matrix A
Matrix B

Order
Matrix C
Matrix D
.
.
.

The output follows the following format:
Order
Matrix A
Matrix B
Product of matrix A*B
Relevant statistics

Order
Matrix C
Matrix D
Product of matrix C*D
Relevant statistics
.
.
.

Running the script

Please follow the following format when executing the script through command line:

Python3 strassen.py -i path/to/input/file

The path to input file must be provided. When passing in the path to input file, the option "-i" must be specified.

<u>Input</u>
This script accepts text files as input files.