Pattern in a matrix P64919_en

Using the definitions

typedef *vector*<**char**> *Row*;
typedef *vector*<*Row*> *Matrix*;

implement a function

int *pattern* (**const** *Matrix*& *P*, **const** *Matrix*& *M*);

to compute how many times the pattern @P@ appears inside the matrix @M@. It is guaranteed that both matrices are rectangular. Furthermore, if @P@ has dimensions $r_1 \times c_1$ and @M@ has dimensions $r_2 \times c_2$, then it holds $1 \leq r_1 \leq r_2 \leq 50$ and $1 \leq c_1 \leq c_2 \leq 50$.

For instance, the pattern 2×3 to the left appears twice in the matrix 3×4 to the right.

$$\begin{pmatrix} a & b & b \\ b & b & c \end{pmatrix} \qquad \begin{pmatrix} a & a & b & b \\ a & b & b & c \\ b & b & c & a \end{pmatrix}$$

You may implement auxiliar procedures if needed.

Hint

The expected solution simply checks the pattern on every possible position of the matrix.

Observation

You only need to submit the required procedure; your main program will be ignored.

Problem information

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