```
input matrices A, B
define m = # of rows of A,
       n = # of cols of A
       p = # of rows of B
       q = # of cols of B

if n is not equal to p, then do nothing
else
   define empty matrix C of m rows
   and q cols

   for i from 1 to m
      for j from 1 to q
         define C_ij = 0
         for k from 1 to n
            C_ij = C_ij + A[i,k] * B[k,j]
         end for
      end for
      C[i,j] = C_ij
end for

print C
```