

ORIGIN := 1      It looks that you would like 1 as the number of the first row/column

Using some auxiliary functions:

count(e, M) := 0 on error rows(match(e, M))

```

avgCol(n, M) :=
  O ← ORIGIN
  for i ∈ O..O + cols(M) - 1
    |
    | v_i ← i
    | cnt_i ← count(n, M^âi)
    |
    |-----|
    |   v×cnt
    |   â cnt
  
```

avgRowCol(number, matrix) := (avgCol(number, matrix<sup>T</sup>) avgCol(number, matrix))

M :=  $\begin{pmatrix} 3 & 3 \\ 3 & 4 \\ 4 & 4 \end{pmatrix}$       avgRowCol(3, M) = (1.4 1.8)

One self-contained function with local function definitions:

```

avgRowCol(number, matrix) :=
  count(e, M) ← 0 on error rows(match(e, M))
  avgCol(n, M) ←
    O ← ORIGIN
    for i ∈ O..O + cols(M) - 1
      |
      | v_i ← i
      | cnt_i ← count(n, M^âi)
      |
      |-----|
      | O - 1 on error v×cnt
      |   â cnt
  (avgCol(number, matrixT) avgCol(number, matrix))
  
```

avgRowCol(3, M) = (1.4 1.8)

i := 1..4    j := 1..6      A<sub>i,j</sub> := 3 + trunc(rnd(2))

A =  $\begin{pmatrix} 4 & 4 & 3 & 4 & 3 \\ 4 & 3 & 4 & 4 & 3 \\ 4 & 4 & 4 & 4 & 3 \\ 3 & 3 & 4 & 4 & 3 \end{pmatrix}$       avgRowCol(3, A) = (2.6 3.8)

avgRowCol(4, A) = (2.429 3.286)

avgRowCol(2, A) = (0 0)