

Množenje matrik:

$$\begin{bmatrix} 1 & 2 & 3 \\ 3 & 2 & 1 \\ 0 & 1 & 1 \end{bmatrix} \times \begin{bmatrix} 1 & 2 & 1 \\ 0 & 1 & 1 \\ 2 & 0 & 1 \end{bmatrix} =$$

$$1 \times 1 + 2 \times 0 + 3 \times 2 = 7$$

$$3 \times 1 + 2 \times 0 + 1 \times 2 = 5$$

$$0 \times 1 + 1 \times 0 + 1 \times 2 = 2$$

Rešitev je:

$$1 \times 2 + 2 \times 1 + 3 \times 0 = 4$$

$$3 \times 2 + 2 \times 1 + 1 \times 0 = 8$$

$$0 \times 2 + 1 \times 1 + 1 \times 0 = 1$$

$$1 \times 1 + 2 \times 1 + 3 \times 1 = 6$$

$$3 \times 1 + 2 \times 1 + 1 \times 1 = 6$$

$$0 \times 1 + 1 \times 1 + 1 \times 1 = 2$$

$$\begin{bmatrix} 7 & 4 & 6 \\ 5 & 8 & 6 \\ 2 & 1 & 2 \end{bmatrix}$$

Rešitev v Excelu:

1	2	3		1	2	1		=MMULT(A1:C3;E1:G3)	=MMULT(A1:C3;E1:G3)	=MMULT(A1:C3;E1:G3)
3	2	1		0	1	1		=MMULT(A1:C3;E1:G3)	=MMULT(A1:C3;E1:G3)	=MMULT(A1:C3;E1:G3)
0	1	1		2	0	1		=MMULT(A1:C3;E1:G3)	=MMULT(A1:C3;E1:G3)	=MMULT(A1:C3;E1:G3)

=MMULT(Array1;Array2) + Ctrl + Shift + Enter

Program v fortranu – množenje dveh matrik 3 x 3:

```
PROGRAM MATRIKA_MNOZ
INTEGER S,A(3,3),B(3,3),C(3,3)
CHARACTER*2 X,Y,Z,V
X='A('
Y='B('
Z=')=('
V=','
PRINT*, 'PODAJ ELEMENTE MATRIKE A:'
PRINT*, ''
DO I=1,3
  DO J=1,3
    WRITE(*,5)X,J,V,I,Z
    READ*,A(I,J)
  ENDDO
ENDDO
PRINT*, ''
PRINT*, 'PODAJ ELEMENTE MATRIKE B:'
PRINT*, ''
DO I=1,3
  DO J=1,3
    WRITE(*,5)Y,J,V,I,Z
    READ*,B(I,J)
  ENDDO
ENDDO
PRINT*, ''
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```
PRINT*, 'MATRIKA A:'
WRITE(*,10)((A(I,J),J=1,3),I=1,3)
PRINT*, ''
PRINT*, 'MATRIKA B:'
WRITE(*,10)((B(I,J),J=1,3),I=1,3)
DO I=1,3
  DO J=1,3
    S=0
    DO K=1,3
      S=S+A(I,K)*B(K,J)
    ENDDO
    C(I,J)=S
  ENDDO
ENDDO
PRINT*, ''
PRINT*, 'PRODUKT C=A X B:'
WRITE(*,10)((C(I,J),J=1,3),I=1,3)
5 FORMAT (1X,A2,I1,A1,I1,A2)
10 FORMAT (3I5)
END PROGRAM MATRIKA_MNOZ
```