

MATLAB-funktiot

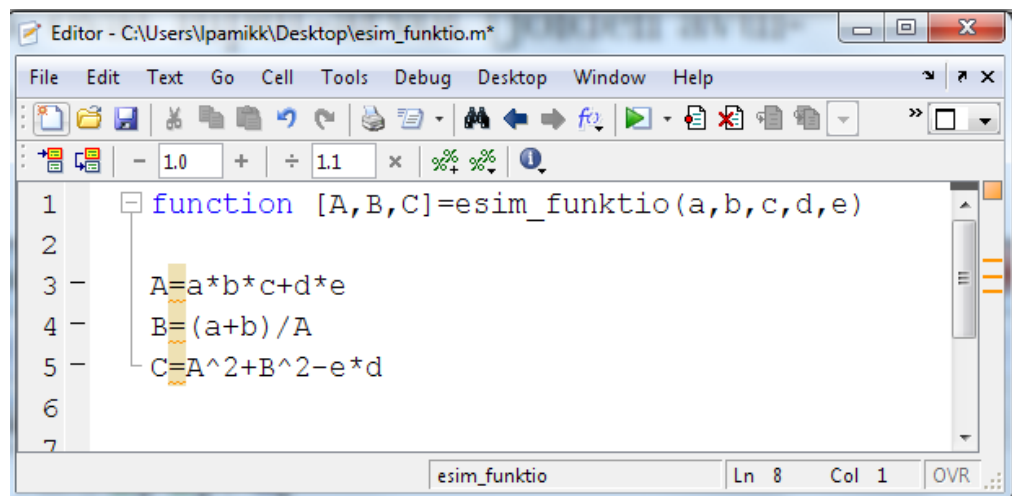
ovat MATLAB-tiedostoja, jotka toimivat kuten aliohjelmat eli niitä kutsutaan ”pää tiedostosta”

Funktio-tiedoston ensimmäinen rivi on

```
function [out1,out2,out3,...]=nimi(in1,in2,in3,...)
```

missä out1,out2,out3,... ovat funktion palauttavat (output) arvot (eli laskennon tulokset), nimi on funktiotiedoston nimi ja in1,in2,in3, ovat input-arvot (joiden avulla output-arvot lasketaan)

Esimerkiksi allaolevaa funktiotiedostoa

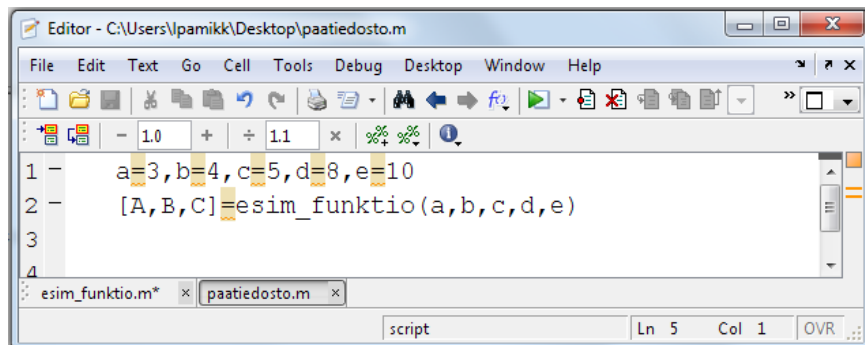


The screenshot shows a MATLAB Editor window titled "Editor - C:\Users\lpamikk\Desktop\esim_funktio.m*". The window contains the following MATLAB code:

```
1 function [A,B,C]=esim_funktio(a,b,c,d,e)
2
3     A=a*b*c+d*e
4     B=(a+b)/A
5     C=A^2+B^2-e*d
6
7
```

The status bar at the bottom indicates the file name "esim_funktio", the current line "Ln 8", the current column "Col 1", and the view mode "OVR".

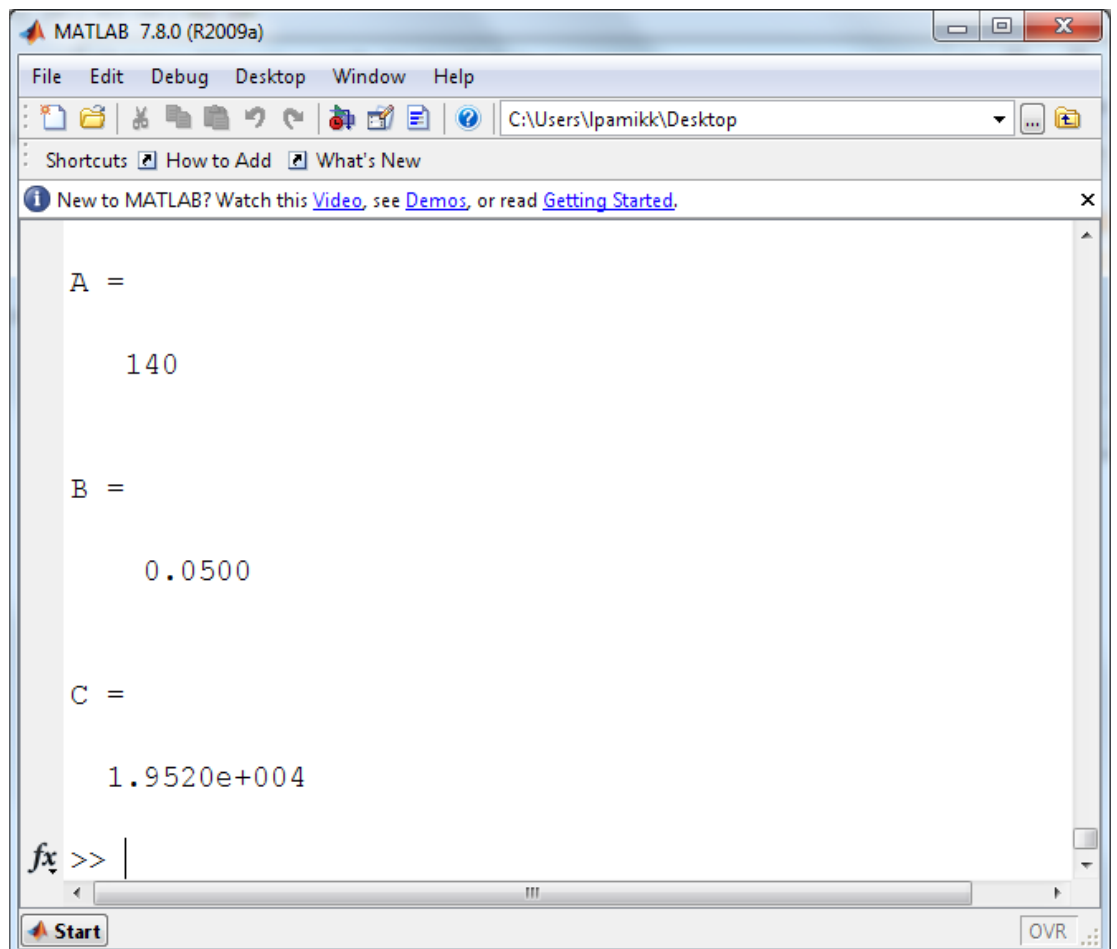
kutsutaan päätiedostosta näin (tiedostojen pitää olla samassa kansiossa):



The image shows a MATLAB Editor window titled 'Editor - C:\Users\lpamikk\Desktop\paatiedosto.m'. The menu bar includes File, Edit, Text, Go, Cell, Tools, Debug, Desktop, Window, and Help. The toolbar contains various icons for file operations and execution. The script content is as follows:

```
1 - a=3,b=4,c=5,d=8,e=10
2 - [A,B,C]=esim_funktio(a,b,c,d,e)
3
4
```

The status bar at the bottom indicates 'script', 'Ln 5', 'Col 1', and 'OVR'.



The image shows the MATLAB Command Window titled 'MATLAB 7.8.0 (R2009a)'. The menu bar includes File, Edit, Debug, Desktop, Window, and Help. The address bar shows the current directory as 'C:\Users\lpamikk\Desktop'. A message bar at the top says 'New to MATLAB? Watch this [Video](#), see [Demos](#), or read [Getting Started](#).' The command window displays the output of the script:

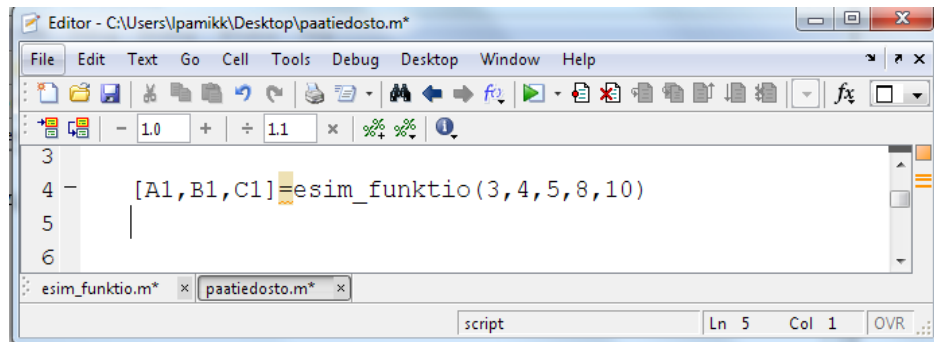
```
A =
    140

B =
    0.0500

C =
    1.9520e+004
```

The prompt 'fx >>' is visible at the bottom left. The status bar at the bottom shows 'Start' and 'OVR'.

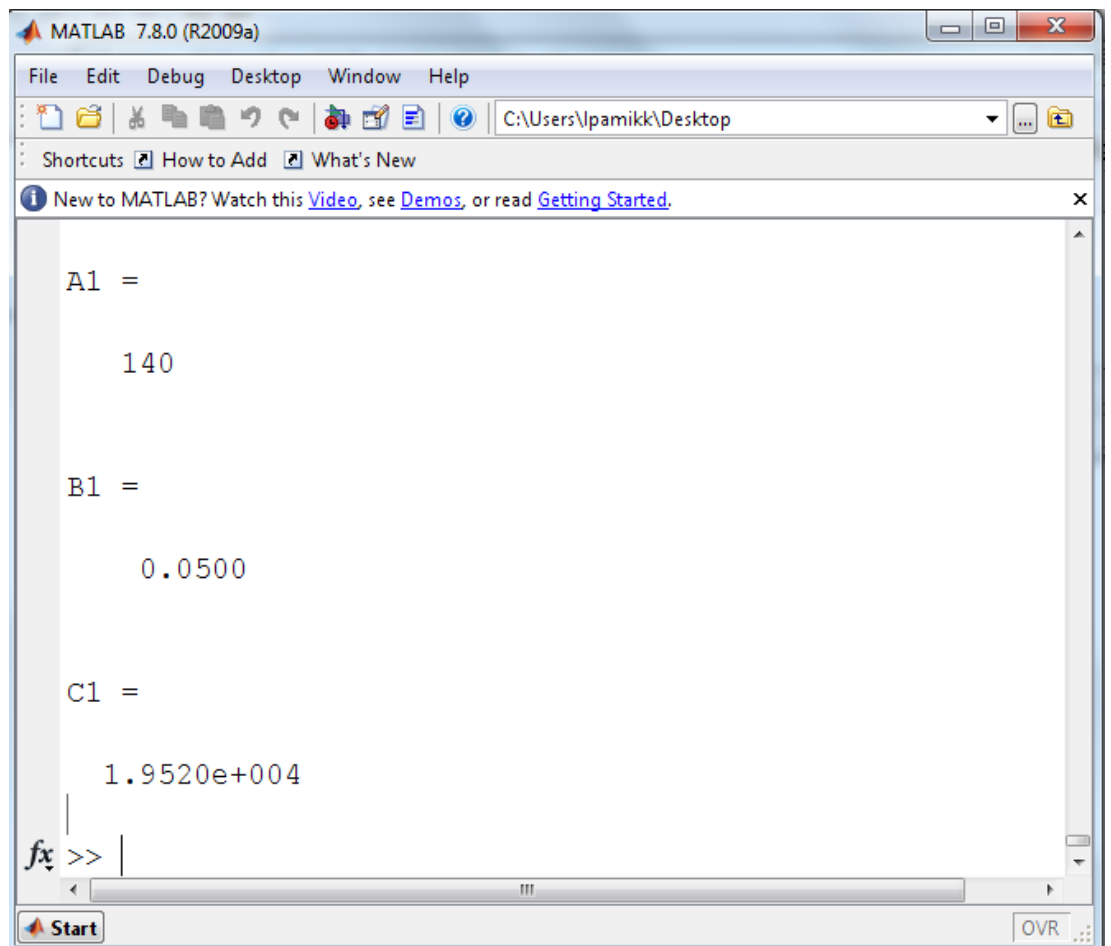
tai näin



The image shows a MATLAB Editor window titled 'Editor - C:\Users\lpamikk\Desktop\paatiedosto.m*'. The menu bar includes File, Edit, Text, Go, Cell, Tools, Debug, Desktop, Window, and Help. The toolbar contains various icons for file operations and editing. The script content is as follows:

```
3  
4 - [A1,B1,C1]=esim_funktio(3,4,5,8,10)  
5 |  
6
```

The status bar at the bottom indicates 'script', 'Ln 5', 'Col 1', and 'OVR'.



The image shows the MATLAB 7.8.0 (R2009a) Command Window. The title bar reads 'MATLAB 7.8.0 (R2009a)'. The menu bar includes File, Edit, Debug, Desktop, Window, and Help. The toolbar contains icons for file operations and debugging. The Command Window displays the output of the script:

```
A1 =  
  
    140  
  
B1 =  
  
    0.0500  
  
C1 =  
  
    1.9520e+004  
fx >> |
```

The status bar at the bottom shows 'Start' and 'OVR'.