

```
%Clear the workspace and close all figures
clear all;
close all;

%This global constant can be accessed inside the function
global globalconstant
globalconstant=4;

%This constant cannot be accessed inside the function because it is not
%global or passed in as input
constant=12.;

%Specify inputs
in1=1;
in2=2;
in3=3;

%How to call a function in the main body of a program
%Note, the variable names do not need to be the same you just need
%to input and output the same number of variables
[var1,var2,var3] = examplefunction(in1,in2,in3);

%The output of the function
var1
var2
var3

%Uncommenting out the following will show that variables defined
%locally cannot be accessed outside the function
%localconstant

%Although global variables can. I rarely use this feature because it is
%harder to keep track of what is happening compared to defining inputs and
%outputs
globalconstant

%Functions embedded in scripts need to be placed at the end of the program
function [output1,output2,output3] = examplefunction(input1,input2,input3)
%UNTITLED3 Summary of what the function does goes here

%The body of the function is similar to the body of a script

%Any constants/variables defined in the function are LOCAL, which means you cannot
%access them outside the function unless they are part of the output.
localconstant=10;

%You also cannot access constants declared in the main program but not
%passed into the function. Try uncommenting the constant below.
%constant

%Although you can use special syntax to declare global variables which
%can be accessed outside of the function even if they are not part of the
%output
global globalconstant
globalconstant=10

%The function should define values for the output variables
output1=input3;
output2=input1;
output3=input2;

%Every function needs an end
end
```

