

**MATLAB EXERCISE 1.2** **2-D vector plot.** Write a function `vecPlot2D()` in MATLAB that, for a given 2-D vector as input, specified by coordinates of its starting and ending points in the  $xy$ -plane, plots the vector. (*vecPlot2D.m on IR*)

**SOLUTION:**

```
%
% Book: MATLAB-Based Electromagnetics (Pearson Prentice Hall)
% Author: Branislav M. Notaros
% Instructor Resources
% (c) 2011
%
% This MATLAB code or any part of it may be used only for
% educational purposes associated with the book
%
%
%
% 2-D vector plot

function vecPlot2D(Vi,Vf,scaling,color,origin)
u = Vf(1)- Vi(1);
v = Vf(2)- Vi(2);
x = Vi(1);
y = Vi(2);
if (origin~=0)
    plot(x,y,'o','MarkerSize',10,'MarkerFaceColor',color);
    hold on;
end;
quiver(x,y,u,v,scaling,'LineWidth',2,'Color',color);
whitebg('white');
grid on;
hold off;
axis equal;
```