



The image shows a MATLAB Editor window titled "Editor - D:\matrix_problem_5.m". The window contains a script with 12 lines of code. The code defines time t from 0 to 0.02 seconds, calculates voltage v and current i as sinusoidal functions, and plots them in two subplots. The first subplot shows voltage v versus time t , and the second subplot shows current i versus time t .

```
1 %problem6
2 close all;
3 clear all;
4 clc;
5 t = linspace(0,.02);
6 v = 10*sin(100*pi*t + 45);
7 i = .2*sin(100*pi*t+135);
8 subplot(2,1,1), plot(t,v);
9 xlabel('time (s)'),ylabel('voltage (v)')
10 subplot(2,1,2), plot(t,i);
11 xlabel('time (s)'),ylabel('current (A)')
12
```

