Chapter 2: Electrical components and circuits

chapter2_1 solves the passive element circuit based on mesh analysis

```
% Onwubolu, G. C.
% Mechatronics: Principles & Applications
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%
% Mechatronics: Principles & Applications Toolbox Version 1.0
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%
% Chapter 2.3: Electrical components and circuits
%
% Example M2.8    MATLAB's calculating power is demonstrated by analyzing
circuits sing
% mesh/nodal analyses methods. We consider some examples.

'Example M2.8'           % Display label.
% matrix manipulation
A=[5.2 0 -5; 0 5.2 -5; 5 5 -20]; %Problem 2 with sol: i1=i2=42.6; i3=21.3
Y=[115 115 0];
% A*X=Y;
'current'
X=A\Y'
'voltage'
Vx(1)=(X(1)-X(3))*5; Vx(2)=(X(3)-X(2))*5; Vx(3)=X(3)*10;
V=Vx
pause
```