Homework #5

Due next Wed

1. For the following network -- perform either node or mesh analysis to determine the operating point voltages.

![Image of a circuit diagram with labels for voltages V(A), V(B), and V(C).]

2. For the following network, use impedances to determine the voltage and phase for the indicated points.

![Image of a circuit diagram with a grid and components labeled.]

Find \( V(A(t)) \)

Given: Both sources are \( \phi @ t=0 \) and \( R=1 \)

3. Consider the following linear differential system, find a general solution:

\[
\begin{bmatrix}
2 & -3 \\
4 & 6
\end{bmatrix}
\begin{bmatrix}
y_1 \\
y_2
\end{bmatrix}
=
\begin{bmatrix}
y'_1 \\
y'_2
\end{bmatrix}
\]