## EE 206 Final - Name

Closed-Book, Closed Notes, Calculators Permitted. - Spring 2019

1) Write N equations which allow you to solve for the N unknown voltages

2) Write N equations which allow you to solve for the N unknown currents


|  |
| :--- | :--- |
|  |
|  |

3) Find the voltages V1, V2, V3

| V0 | V1 | V2 | V3 |
| :---: | :---: | :---: | :---: |
|  |  |  | 10.0 V |


4) Find the Thevenin equivalent for the following circuit:

| Vth | Rth |
| :--- | :--- |
|  |  |


5) Find the voltages V1 .. V7

|  | V2 | V3 | V4 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
|  | V5 |  | V7 |


6) Determine the impedance between $a$ and $b$

Zab =

7) Determine the voltages V1 and V2

| Frequency <br> (Hz) | V1 |  | V2 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Amplitude (Vp) | Phase (degrees) | Amplitude (Vp) | Phase (degrees) |
|  |  |  |  |  |
|  |  |  |  |  |


8) Determine the votlage at Y. Assume

$$
x(t)=15+20 \sin (100 t)
$$

$y(t)=$


Bonus! Which is more?

- The number of Democrats running for President in 2020, or
- The number of Godzilla movies that have been made

