## EE 206 Test \#3 - Name

April 24, 2019

1) Determine the impedance Zab
$\mathrm{Zab}=$

2) Determine the frequency and phasor representation for V1 and V2

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


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


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

4) Assume

$$
x(t)=20+15 \cos (50 t)
$$

Determine the voltage, $\mathrm{y}(\mathrm{t})$
$y(t)=$

5) Assume

$$
x(t)=20+15 \cos (50 t)
$$

Determine the voltage, $\mathrm{y}(\mathrm{t})$
$y(t)=$


Bonus! Suggest one thing that the U.S. government could do to reduce income inequality

