## EE 206: Lab \#11

Superposition with Phasors

Build the following circuit


1) Measure V0 .. V4 (amplitude and phase) with

- $\mathrm{Va}=5 \cos (628 \mathrm{t}) \quad 5 \mathrm{Vp}, 100 \mathrm{~Hz}$ sine wave
- $\mathrm{Vb}=0 \mathrm{~V}$

2) Measure V0 .. V4 (amplitude) with

- $\mathrm{Va}=0 \mathrm{~V}$
- $\mathrm{Vb}=5 \quad 5 \mathrm{~V}$ DC signal

3) Measure V0 .. V4 (amplitude and phase) with

- $\mathrm{Va}=5 \cos (628 \mathrm{t})$
- $\mathrm{Vb}=5$

Do the results add up?

|  | Va=5 cos(628t) <br> $\mathrm{Vb}=0 \mathrm{~V}$ | $\mathrm{Va=0V}$ <br> $\mathrm{Vb}=5$ | $\mathrm{Va}=5 \cos (628 \mathrm{t})$ <br> $\mathrm{Vb}=5$ |
| :---: | :---: | :---: | :---: |
| V 0 |  |  |  |
| V1 |  |  |  |
| V2 |  |  |  |
| V3 |  |  |  |
| V4 |  |  |  |

