## AC Superposition Theorem Examples (30:06)

Apply the superposition theorem to determine the electrical properties for elements in this circuit.


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ERROR @ 18:00
when $I_{B}$ is source of interest $V_{2}$ and $V_{1}=2.5 \mathrm{~V} \angle-62.4^{\circ}$ oriented + to - top to bottom
Final results: $\quad V_{1}=21.4 \mathrm{~V} \angle 34.4^{\circ}$ oriented + to - bottom to top
$\mathrm{I}_{1}=196.8 \mathrm{~mA} \angle 34.4^{\circ}$
$\mathrm{V}_{2}=13.6 \mathrm{~V} \angle-62.4^{\circ}+$ to - top to bottom
$\mathrm{I}_{2}=239.4 \mathrm{~mA} \angle 27.6^{\circ}$

Apply the superposition theorem to determine the electrical properties for elements in this circuit.


$$
\begin{aligned}
& I_{\lambda}=150 \mathrm{~mA} \angle 0^{\circ} \\
& \bar{E}_{R}=60 \mathrm{~V} \angle 0^{\circ} \\
& \bar{z}_{1}=120 \Omega \angle 90^{\circ} \\
& \bar{z}_{2}=150 \Omega \angle 90^{\circ} \\
& \bar{z}_{3}=133 \Omega \angle 0^{\circ}
\end{aligned}
$$

