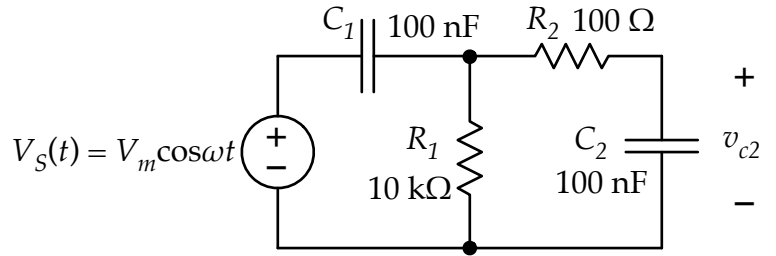


Use AC analysis to find the complex voltage for v_{C2} shown in the circuit at right for frequencies of $\omega = 10^3$ rad/s, 10^4 rad/s, and 10^5 rad/s. The amplitude of the sinusoidal source is 10 V. Express the answers in magnitude/phase form.



$\omega = 10^3$ rad/s : $\tilde{V}_{C2} =$ _____

$\omega = 10^4$ rad/s : $\tilde{V}_{C2} =$ _____

$\omega = 10^5$ rad/s : $\tilde{V}_{C2} =$ _____