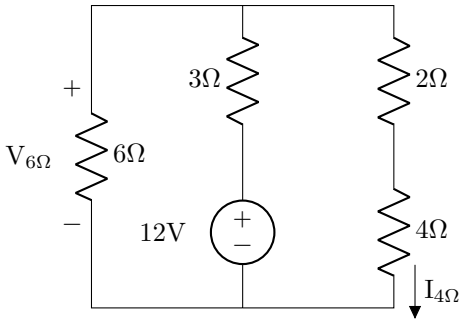
1. Analyze the following circuit:

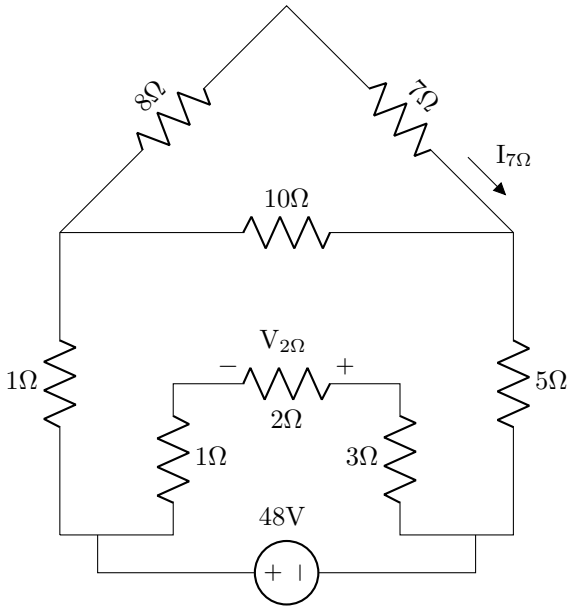


(a) Find $I_{4\Omega}$ $I_{4\Omega} =$

(b) Find $V_{6\Omega}$ $V_{6\Omega} =$

(c) Find the power delivered by the source. $P_s =$

2. Analyze the following circuit:



(a) Find $V_{2\Omega}$ and $I_{7\Omega}$.

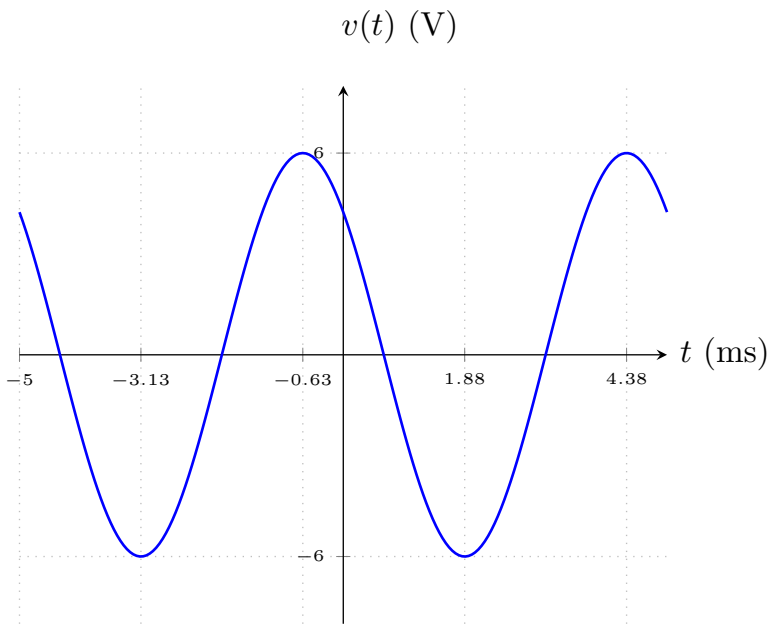
$V_{2\Omega}$ =

$I_{7\Omega}$ =

(b) What equivalent resistance does the 48V source "see"?

R_{eq} =

3. Given the following sinusoidal waveform:



(a) Find its period and frequency in Hz (pay attention to the scaling).

T =

f =

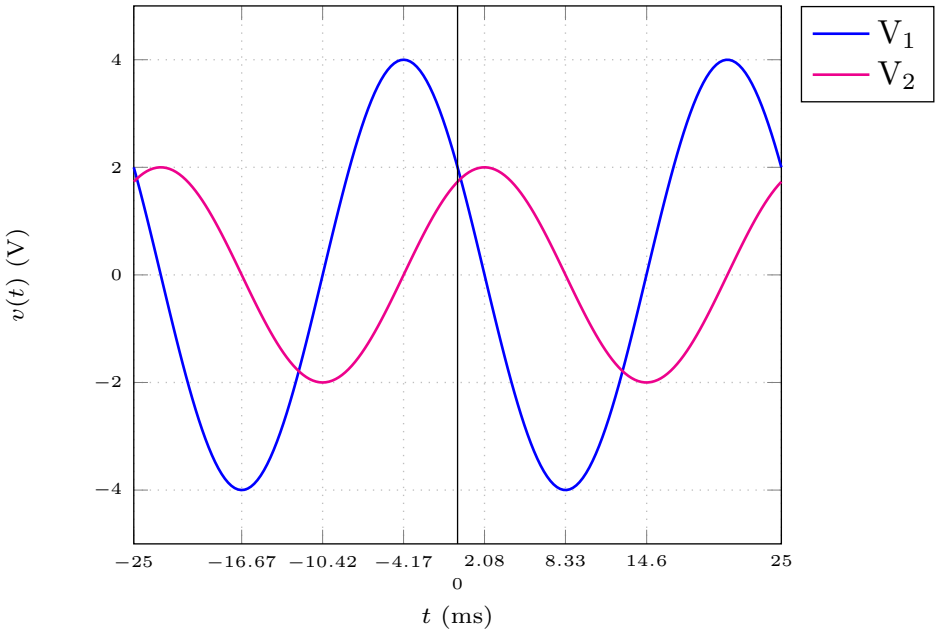
(b) What is its RMS value?

V_{RMS} =

(c) Write an expression for this signal in the form of $V_{pk}\cos(\omega t + \phi_{rad})$

V(t) =

4. Given the following two sinusoidal waveforms, which are at the same frequency:



(a) Find its period and frequency in Hz (pay attention to the scaling).

T =

f =

(b) What is its RMS amplitude of each signal?

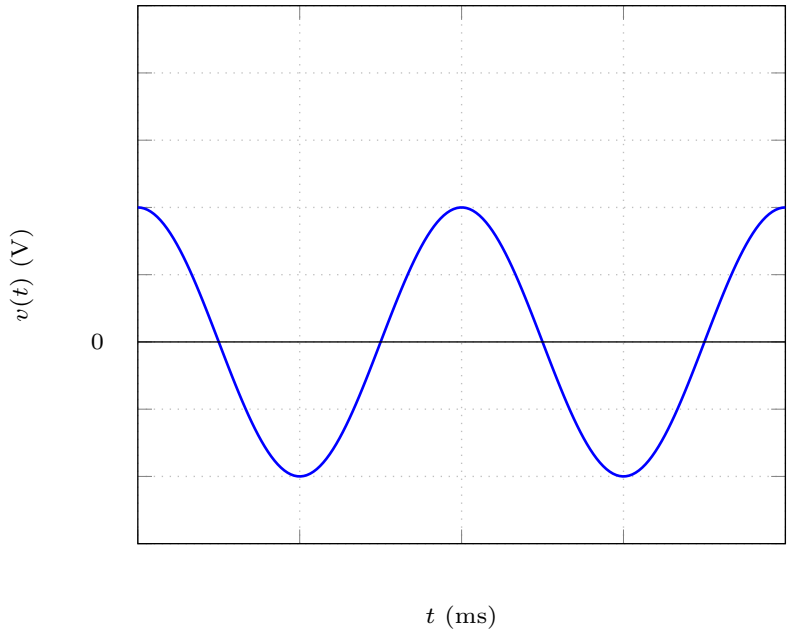
V_1 =

V_2 =

(c) Which signal leads, and by how many **degrees**?

Answer =

5. Given the following oscilloscope waveform, where the vertical scale is set to 5V /div and the horizontal axis is set to 1ms/div:



(a) Compute the frequency in Hz.

$f =$ ____

(b) Compute the RMS amplitude.

$V_{RMS} =$ ____