

## Measuring Phase Shift with an Oscilloscope (26:53)

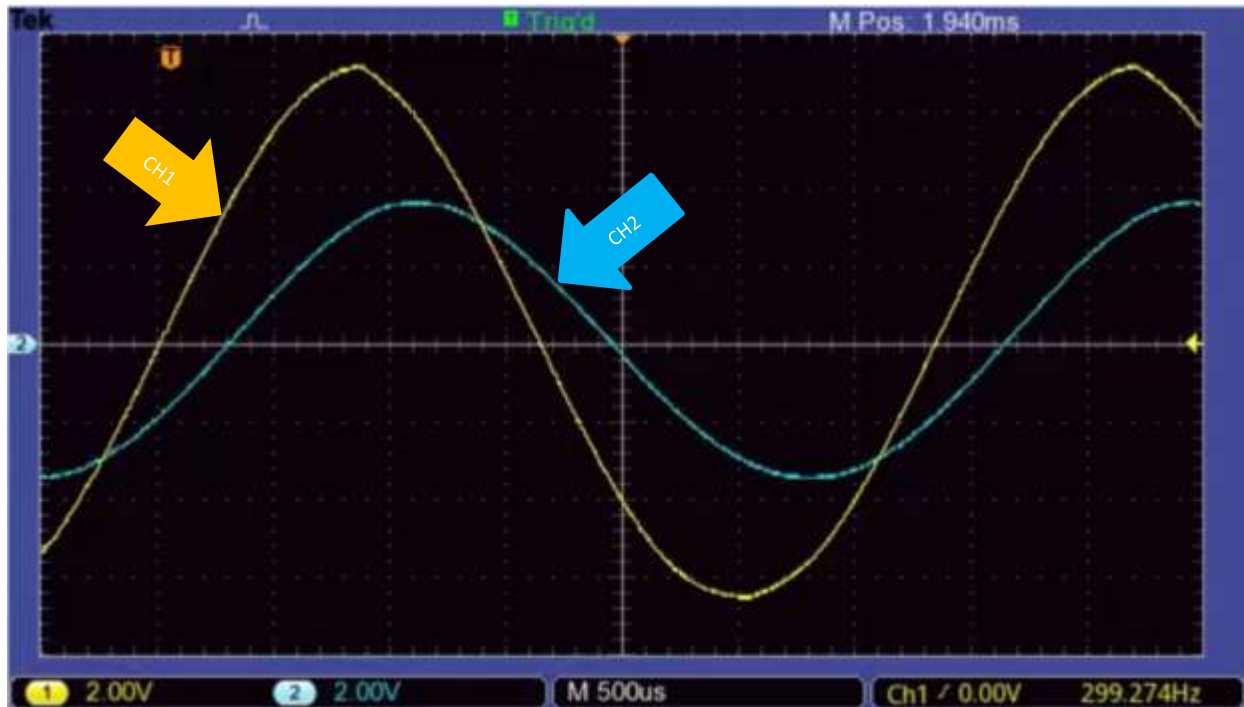
**ERROR at 17:23 separation of 1.4 divisions yields phase shift of  $28.3^\circ$**

Given the following information determine the electrical properties of these waveforms including the phase shift of CH2 with respect to CH1:

CH1 YELLOW vertical sensitivity: 2V/div

CH2 BLUE vertical sensitivity: 2V/div

horizontal sensitivity: 500 $\mu$ s/div.



Discuss the consequences of increasing the vertical sensitivity of channel 1 and channel 2 to 500mV/div and horizontal sensitivity 100 $\mu$ s/div.

Given the following information determine the phase shift of CH1 with respect to CH2:

CH1 YELLOW vertical sensitivity: 2V/div

CH2 BLUE vertical sensitivity: 2V/div

horizontal sensitivity: 2.5ms/div.



Given the following information determine the phase shift of CH1 with respect to CH2.

CH1 YELLOW vertical sensitivity: 100mV/div

CH2 BLUE vertical sensitivity: 100mV/div

horizontal sensitivity: 250μs/div



Given the following information determine the phase shift of CH1 with respect to CH2.

CH1 YELLOW vertical sensitivity: 500mV/div

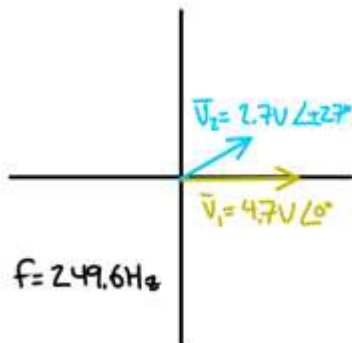
CH2 BLUE vertical sensitivity: 500mV/div

horizontal sensitivity: 250μs/div

**ERROR at 17:23 separation of 1.4 divisions yields phase shift of 28.3°**



Given this phasor diagram determine how many divisions will separate  $V_1$  and  $V_2$  when displayed on an oscilloscope with a horizontal sensitivity of 500us/div.



Identify how to enable and use time cursors to measure phase shift on the Tektronix 1032B.

Identify how to enable automated phase shift measurements on the Tektronix 1032B.