

PHYS-1004: Oscilloscope

Please fill and submit to your TA before leaving the lab. Don't forget the back of the page. Staple your graphs.

Show your work!

Name:_____

Date:_____

Student Number:_____

Partner's name:_____

Workstation Number:_____

TA:_____

Lab Section:_____

Apparatus

AC Voltage

 V_{pp} : _____

 Measured V_{RMS} : _____

RMS Voltage Calculations (using V_{pp})

 Calculated V_{RMS} value:

 Comparison of Measured/Calculated V_{RMS}

Frequency and Phase Difference

Period: _____

 ΔT : _____

Frequency Calculations

Error

Phase Calculations

Error

Calculated frequency value:

Calculated phase difference:

Phase Comparison

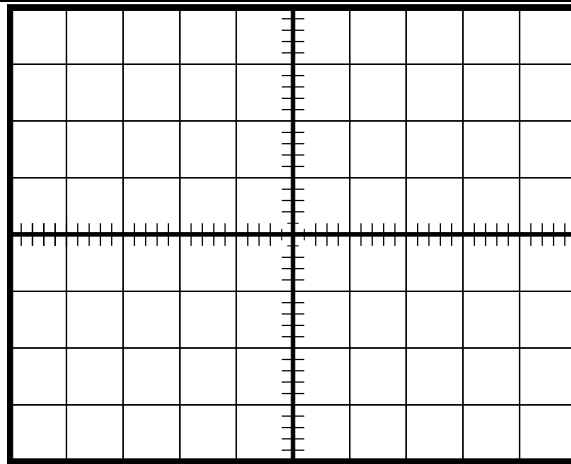
Phase difference waveforms:

Figure 1: _____
 CH1 X-Y Scales: _____/Div _____/Div
 CH2 X-Y Scales: _____/Div _____/Div

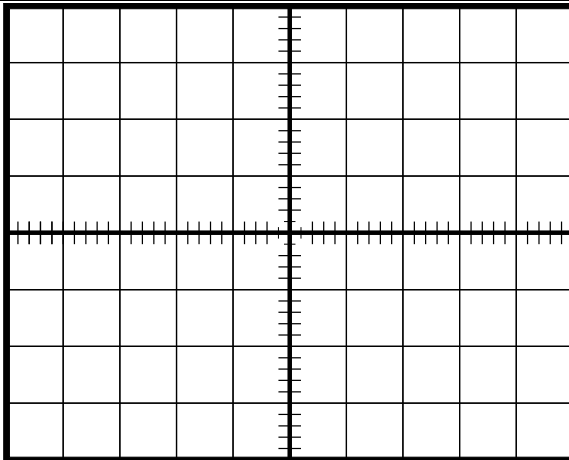
AC to DC Conversion**Observing the effect of the diode and the diode+capacitor:**

Figure 2: _____
 CH1 X-Y Scales: _____/Div _____/Div
 CH2 X-Y Scales: _____/Div _____/Div

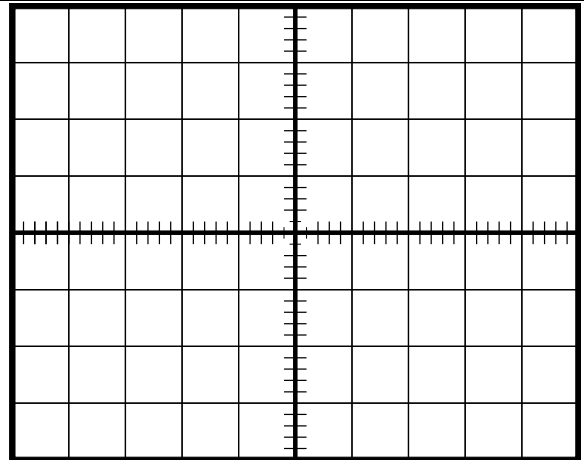


Figure 3: _____
 CH1 X-Y Scales: _____/Div _____/Div
 CH2 X-Y Scales: _____/Div _____/Div

V_{pp} : _____ V_{DC} : _____ V_{ripple} : _____ V_{th} : _____**Quality Factor Calculations****Error on Quality Factor**

Quality Factor: _____

How can the quality factor be increased?