

Student 1 – Name and surname

Student 2 – Name and surname

Group

Date

Table

Worksheet METc lab 1

rev 12

1 Sine wave visualization

$f_1 = f_{\text{generator}} =$

a) $C_{X1} =$

$N_{X1} =$

$T_{\text{mäs1}} =$

$f_{\text{mäs1}} = 1/T_{\text{mäs1}} =$

b) $C_{X2} =$

$N_{X2} =$

$T_{\text{mäs2}} =$

$f_{\text{mäs2}} = 1/T_{\text{mäs2}} =$

c) $A_1 =$

$C_{Y1} =$

$N_{Y1} =$

$U_V =$

$N_{Y2} =$

$U_{VV} =$

$U_V/U_{VV} \text{ (measured)} =$

$U_V/U_{VV} \text{ (theoretical)} =$

2. Setting a triangular signal from the generator

a1. $f_2 =$

$U_{V2} =$

$T_2 =$

$C_X =$

$N_X =$

a2.

$C_Y =$

$N_Y = 2 \text{ div}$

b) $C_{Y'} =$

$N_{Y'} =$

$U_{V'} =$

$U_{V2} =$

Explanations:

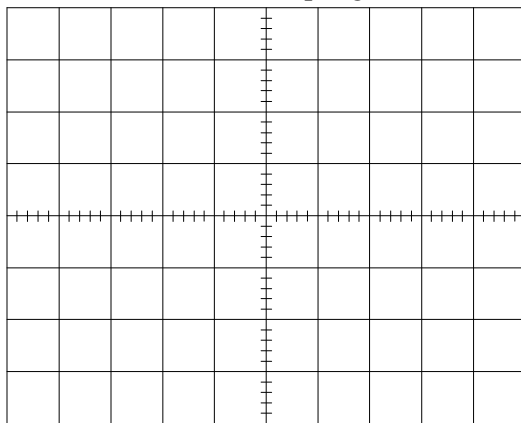
c) $C_{X'} =$

$N_{X'} =$

$T' =$

$T_2 =$

Explanations:

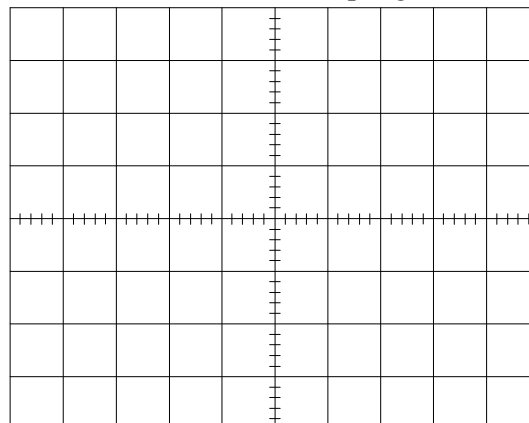
3. Generation and measurement of a sine wave with DC component; Draw the arrow that indicates the 0V level!**a1.** $U_{CC} = -1V$ DC Coupling

$C_Y =$

$[V/\text{div}]$

$C_X =$

$[s/\text{div}]$

a2. $U_{CC} = -1V$ AC Coupling

$C_Y =$

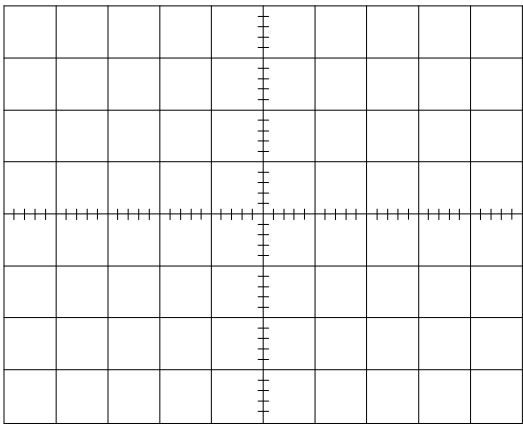
$[V/\text{div}]$

$C_X =$

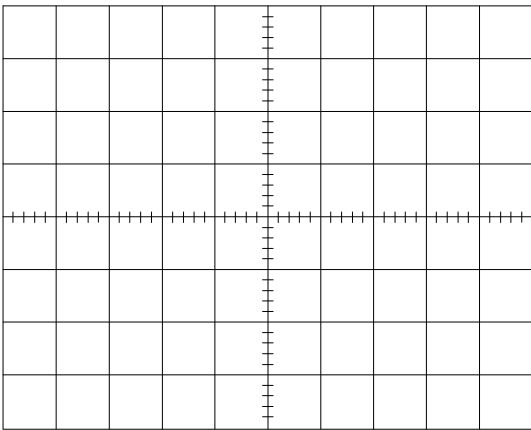
$[s/\text{div}]$

b) DC level measurement; values selected by students; write also the sign of N_Y !

b1) $N_{Y1} =$ [div] $U_{CC1} =$ [V] $C_{Y1} =$ [V/div]
 b2) $N_{Y2} =$ [div] $U_{CC2} =$ [V] $C_{Y2} =$ [V/div]



b1) DC Coupling



b2) DC Coupling

OBS: Draw the arrow that indicates the 0V level!

Explanations AC→DC and not DC→AC:

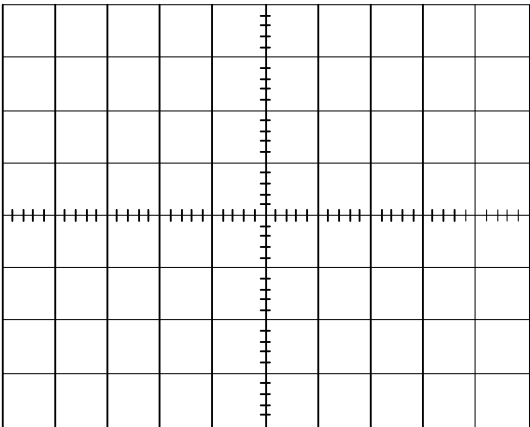
4. *Setting a square (rectangular) signal*

$U_{V4} =$ $f_4 =$ $T_4 = 1/f_4 =$

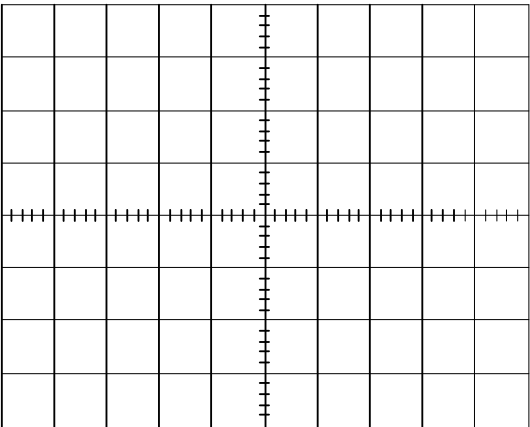
$C_X =$ $C_Y =$

$\eta_1 = 20$ [%] $\tau_1 =$ $T_1 =$ [div] $\tau_1/T_1 =$

$\eta_2 = 50$ [%] $\tau_2 =$ $T_2 =$ [div] $\tau_2/T_2 =$



η_1



η_2

OBS: Draw the arrow that indicates the 0V level!