Gr:	***First name :***	
	Last name:	
	N°	

TP N°2 – Cathode Oscilloscope

Measurement of amplitude and frequency of an alternating voltage

I. Amplitude measurement

1. Procedure for calculating V_{cac}, V_{max} and V_{eff}

V_{cac}=? .....

.....

.....

V_{max}=? .....

.....

.....

V_{eff}=? .....

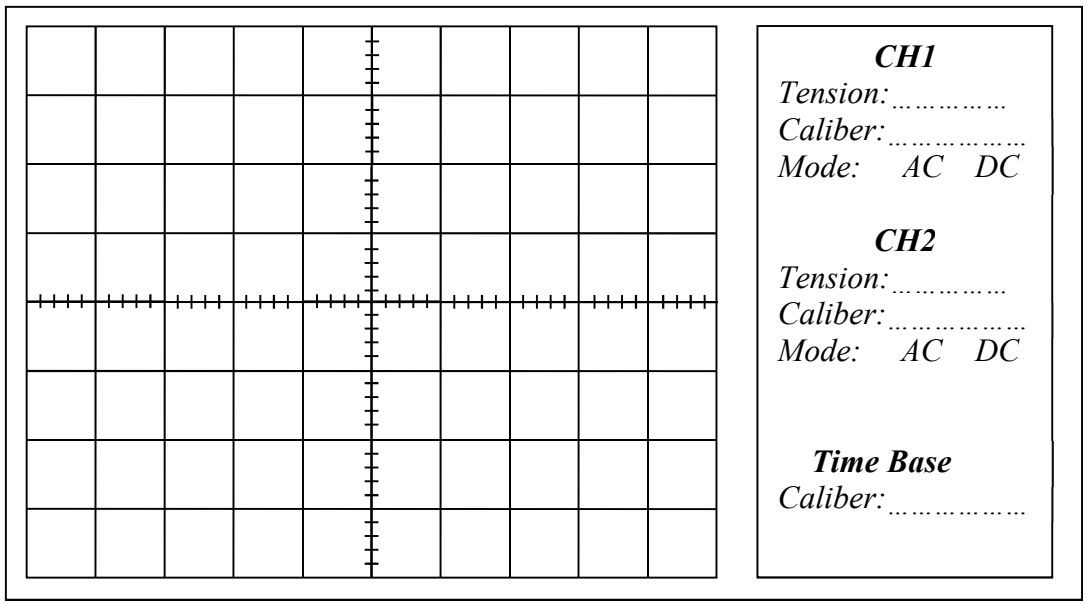
.....

.....

2. Complete the table below

$V_{Generator}$ ( )			
$V_{Voltmeter}$ ( )			
Scale (Caliber) K ( )			
Nb of cm peak to peak.			
V_{cac} ( )			
$V_{max} = V_{cac}/2$ ( )			
$V_{eff} = {V_{max}}/{\sqrt{2}}$ ( )			

3. Graph



4. Interpretation

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II. Visualization of two tensions

Study the two assemblies below and trace the voltages u_1 and u_2 knowing that:

$v(t) = 12\sqrt{2}\sin 100\pi\, t \qquad (V)$

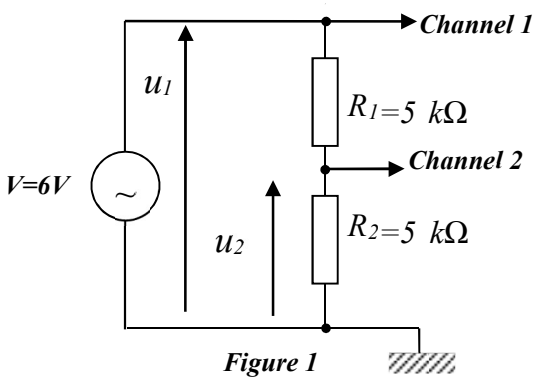


Figure 1

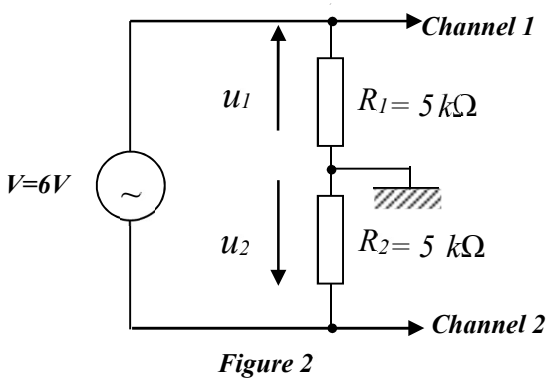
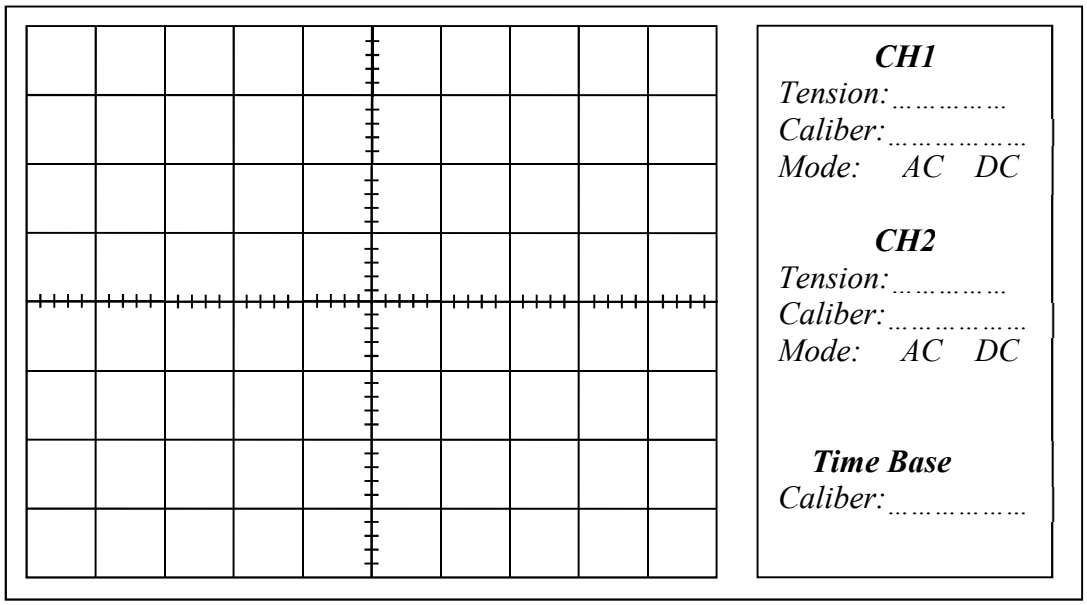
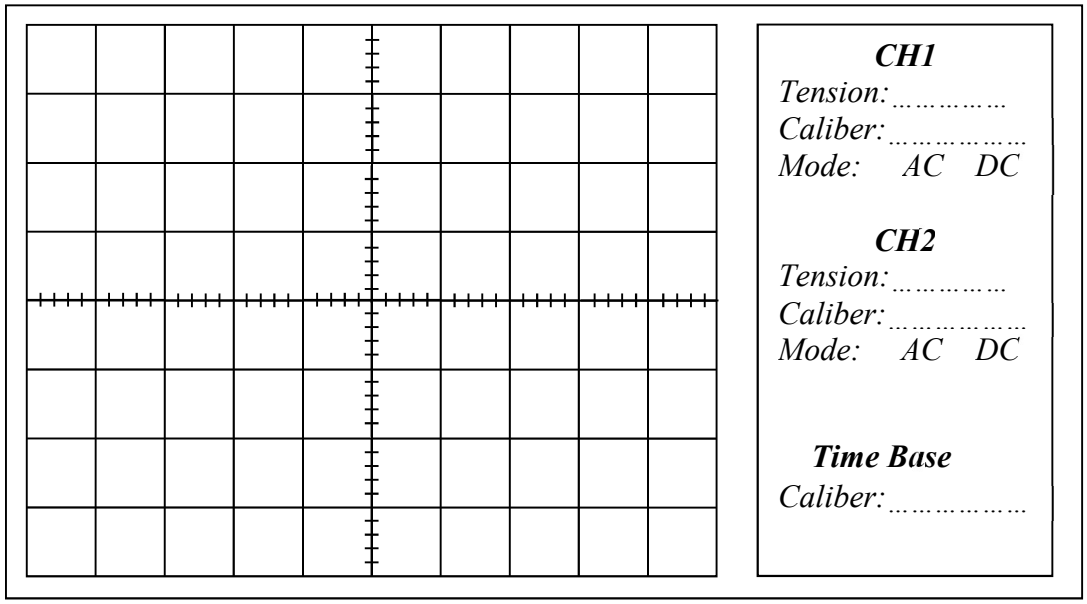


Figure 2

1. Graphs





2. Interpretation

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3. Give the expressions of u_1 and u_2 knowing that $v(t) = 12\ (V)$

	u_1	u_2
Figure 1		
Figure 2		

III. Frequency measurement

1. Procedure for calculating the period T and the frequency f

T=? .....

.....

.....

f=?…….....

.....

.....

2. Complete the table below :

Signal waveform	**Sinusoidal**	**Square**	**Triangular**
Frequency displayed by the GBF F (Hz)	200	500	1000
Calibre base de temps K_s ( )			
Number of cm on a period ***Nb***			
Period T ( )			
Frecuency $F = 1/T$ ( )			

Interpretation

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IV. Conclusion

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