Student 1 –name	Student 2 – name	Group	Table no.	Date/time

Worksheet 5

rev. 5e

1. U= N_y = C_y =

	U	**U_{va}**	**U_{md}**	**$U_{c.rms}$**	U_{pk-pk}	**$U_{rms.calc}$**	ε_{va}	ε_{md}	$\varepsilon_{c.rms}$
Sine wave									

Relationship for $U_{rms.calc}$=

Relationship between U and U_{pk-pk} :

2.

	U	**U_{va}**	**U_{md}**	**$U_{c.rms}$**	U_{pk-pk}	**$U_{rms.calc}$**	ε_{va}	ε_{md}	$\varepsilon_{c.rms}$
Triangular wave									
Rectangular wave									

triangle- formula for $U_{rms.calc}$= rectangle- formula for $U_{rms.calc}$ =

Which voltmeter has higher errors? :

Explanations:

3.

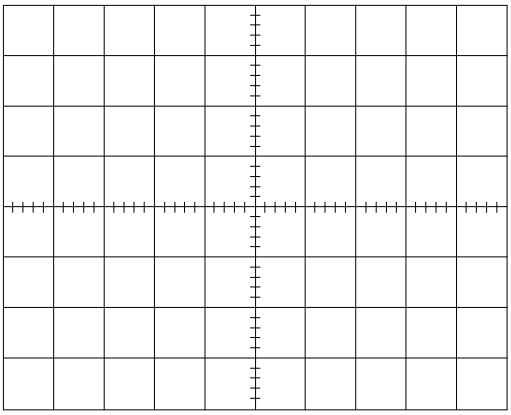
Amplitude U[V] = RMS value[V] =

U_{va}[dB]	U_{va}[dBm]	U_{md}[dB]	U_{md}[dBm]	U_{calc} [dB]	U_{calc} [dBm]

Explanation:

4.

a) Draw the arrows that represent the GND level and trigger moment!



T= *f*=

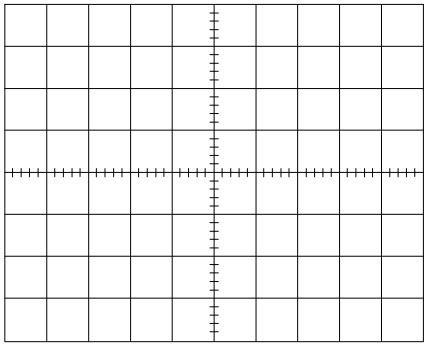
U_{V+} = U_{V-} = (theoretical)

U_{V+} = U_{V-} = (measured)

$U_{mean.osc\ (MEAN)}$ =

$U_{mean.dc.voltmeter}$ =

4.b)



Cx = 100us/div, MEAN =
No. of periods =

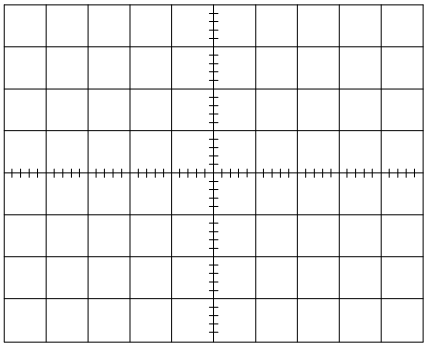
Cx = 250us/div, MEAN =
No. of periods =

For **INVERTED**, MEAN =
No. of periods =

Why has MEAN changed?

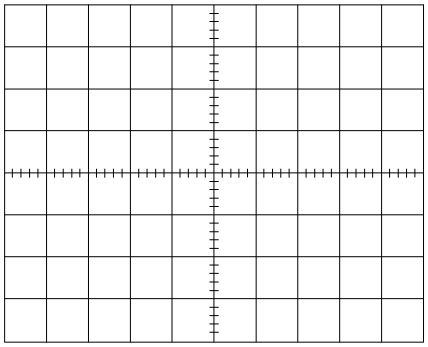
Explanations:

5.a) positive half-wave in and out

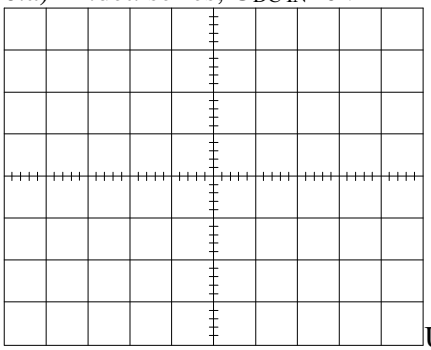


$U_{DC\ HWR}$ = $U_{t\ DC\ HWR}$=

5.b) negative half-wave in and out

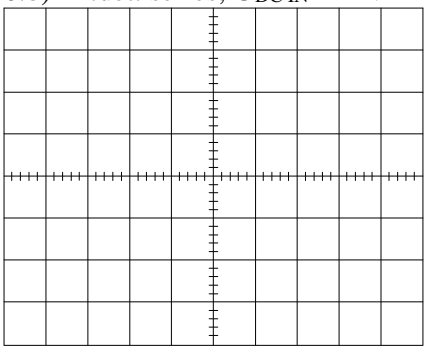


6.a) Pk.det. series, $U_{DC\ IN}$=0V



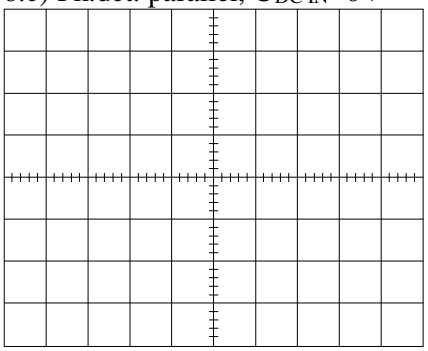
U_{meas}=

6.b) Pk.det. series, $U_{DC\ IN}$= +2V



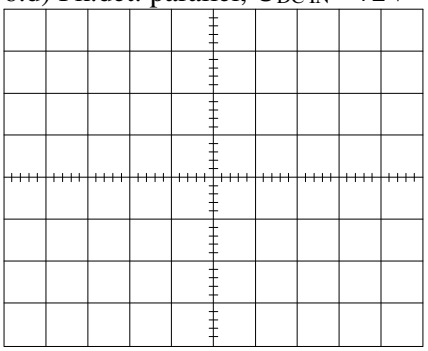
U_{meas}=

6.c) Pk.det. parallel, $U_{DC\ IN}$=0V



U_{meas}=

6.d) Pk.det. parallel, $U_{DC\ IN}$= +2V



U_{meas}=

Mark the DC level and trigger moments on all graphs !

Explanation 6a):

Explanation 6c):

Conclusion pct. b), d):