



BAŞKENT UNIVERSITY
ELECTRIC & ELECTRONICS ENGINEERING

EEM 214 ~ ELECTRONICS–I
LABORATORY
REPORT

Experiment Name : Diode Rectifier Circuits
Experiment Number : 4

Student Name : [REDACTED]
Student Number [REDACTED]
Experiment Date/Day: 31 / 3 /2006
Laboratory Number:

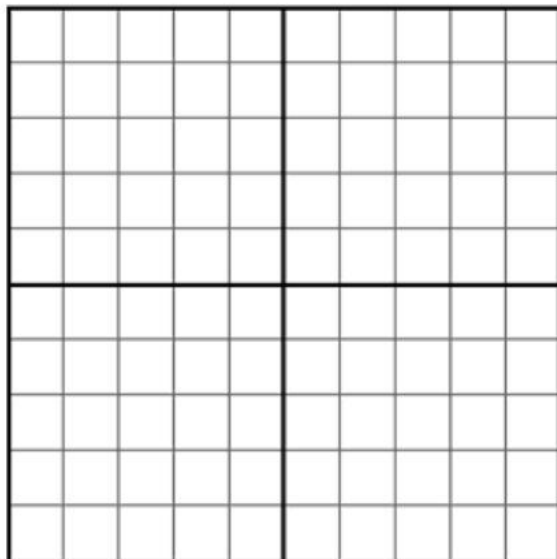
Honor Pledge:

I did this preliminary work or lab report by myself and I have neither cheat from anybody nor let anybody cheat from me at the any part of this work.

Student Signature:

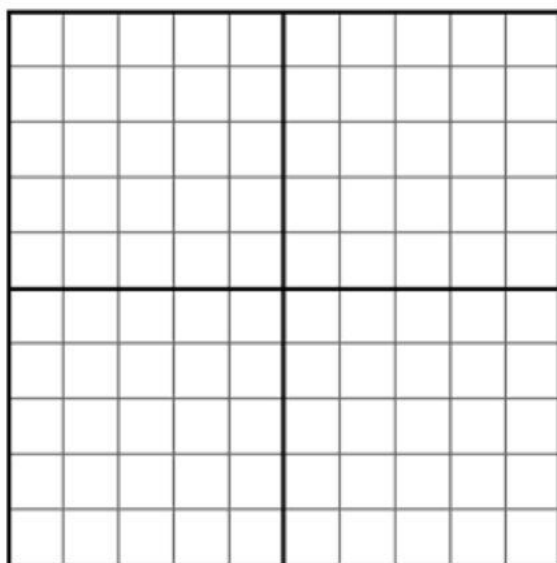
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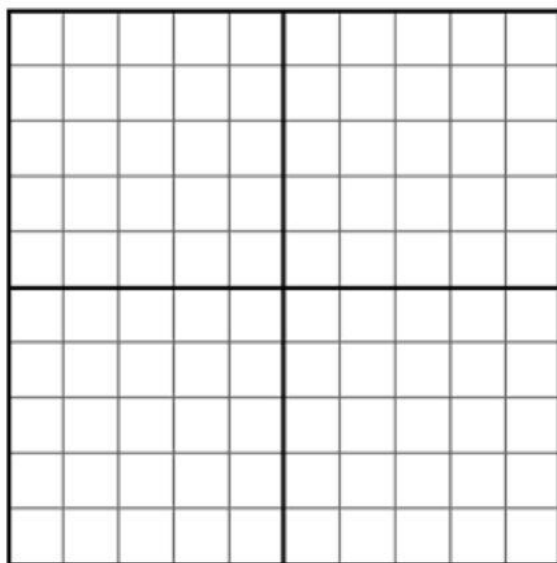
1-)
a.



$V_{out-DC} = 1,315 \text{ V}$
 $V_{out-RMS} = 1,615 \text{ V}$

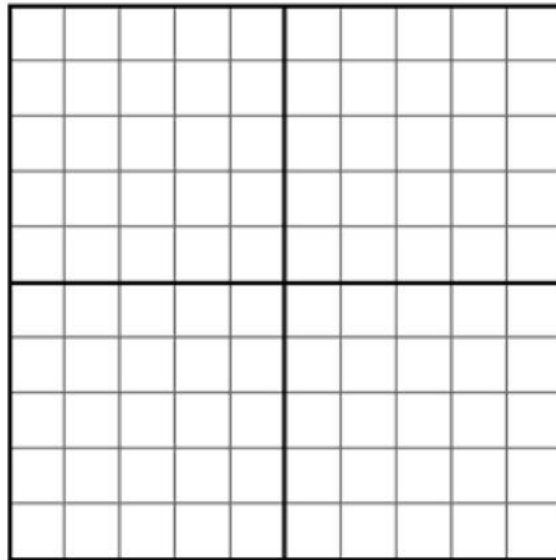
b.





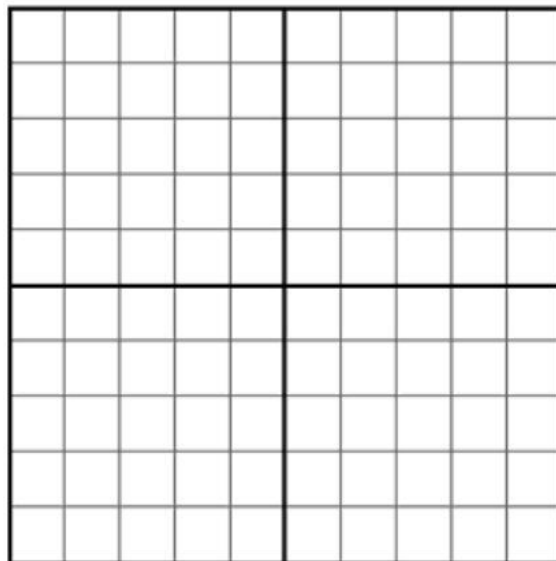
C = 10 uF	C = 1 uF
V _{out-DC} = 2,527 V	V _{out-DC} = 1,327 V
V _{out-RMS} = 0,648 V	V _{out-RMS} = 1,465 V
f _{ripple} = 101,6 Hz	f _{ripple} = 100,8 Hz
V _{peaktopeak-ripple} = 2,08 V	V _{peaktopeak-ripple} = 3,92 V

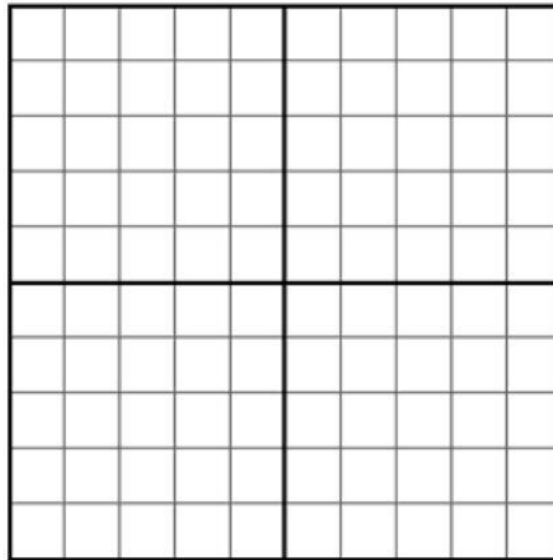
2-)
a-)



Vout-DC = 2,007 V
Vout-RMS = 1,296 V

b-)

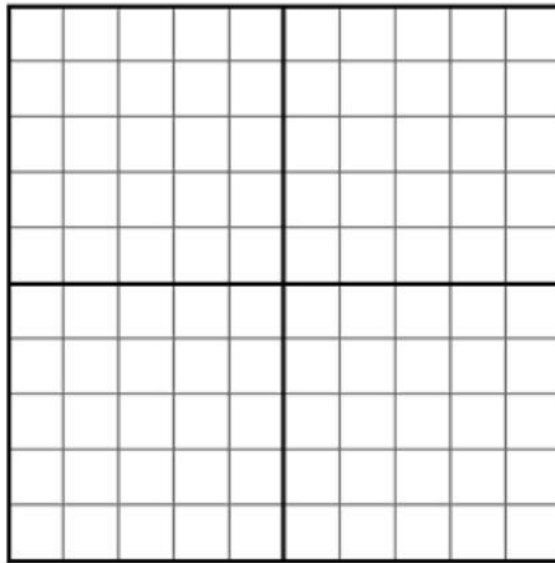




$C = 10 \text{ uF}$	$C = 1 \text{ uF}$
$V_{\text{out-DC}} = 2,927 \text{ V}$	$V_{\text{out-DC}} = 2,185 \text{ V}$
$V_{\text{out-RMS}} = 0,289 \text{ V}$	$V_{\text{out-RMS}} = 1,083 \text{ V}$
$f_{\text{ripple}} = 201,6 \text{ Hz}$	$f_{\text{ripple}} = 201,6 \text{ Hz}$
$V_{\text{peaktopeak-ripple}} = 1,04 \text{ V}$	$V_{\text{peaktopeak-ripple}} = 3,04 \text{ V}$

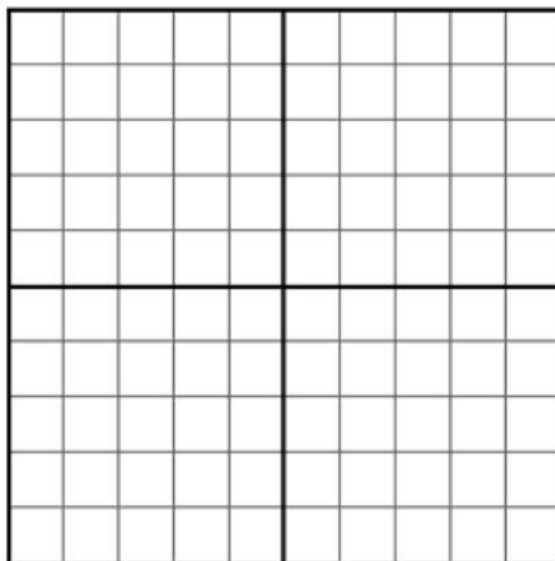
3-)

4-)
a-)



$V_{out-DC} = 6,46 \text{ V}$
 $V_{peaktopeak-ripple} = 0,8 \text{ V}$

b-)



$V_{out-DC} = 3,24 \text{ V}$
 $V_{peaktopeak-ripple} = 0,48 \text{ V}$

c-)

