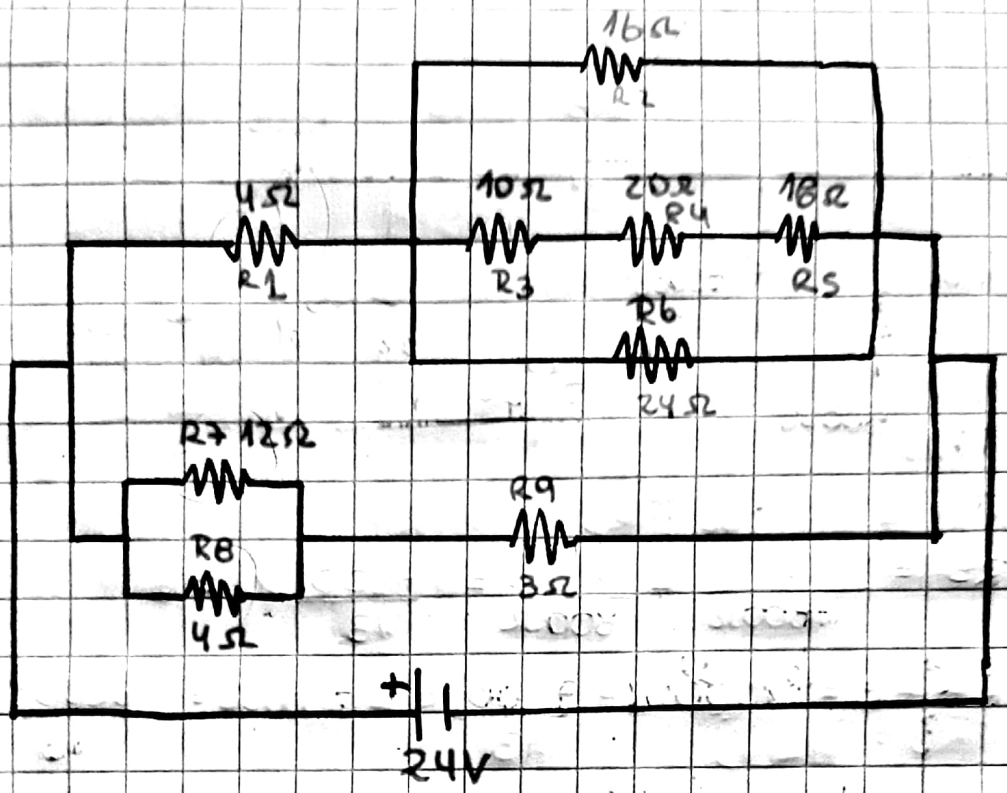
PRUEBA N°1 V. BECKER A. 2[illegible] FECHA: 6/[illegible]/2020

N° 1



R2 // R2 R4 R5 = R3 + R4 R5 = paralelo AS 3

R3 + R4 + R5 = 10Ω + 20Ω + 18Ω

RA = 48Ω

R2 // RB // R3 + R4 + 5.

$$RA + R2 + R6 = \frac{1}{48\Omega} + \frac{1}{16\Omega} + \frac{1}{24\Omega} = \frac{1}{8}\Omega = 8\Omega$$

RB = 8Ω + 4Ω = 12Ω

R7 // RB en serie RA

$$R7 // RB = \frac{1}{12\Omega} + \frac{1}{4\Omega} = \frac{1}{3}\Omega = 3\Omega$$

RC + R9 + (R7 + RB) = 3Ω + 3Ω = 6Ω

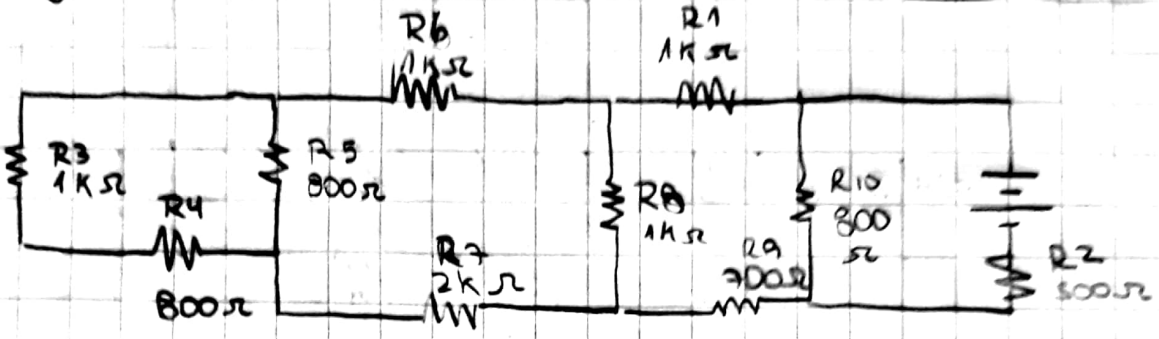
$$RB + RC = \frac{1}{12} + \frac{1}{6} = 4\Omega$$

RT = 4Ω

RHEIN

FECHA: / /

N°2



$R3 + R4 = 1800\,\Omega$ // R5 // R6 R7 // R8 serie R1 R9 // R10 + R2

$A + R5 = \frac{1}{1800\,\Omega} + \frac{1}{800\,\Omega} = \frac{7200}{13}\,\Omega = B$

$R6 + R7 + B = 1000\,\Omega + \frac{7200\,\Omega}{13} + 2000\,\Omega = \frac{46200}{13}\,\Omega = C$

$C + R8 = \frac{1}{\frac{46200}{13}} + \frac{1}{1000\,\Omega} = \frac{28875}{37}\,\Omega = D$

$R1 + D + R9 = \frac{28875}{37}\,\Omega + 1000\,\Omega + 700\,\Omega = \frac{91775}{37}\,\Omega = E$

$E + R10 = \frac{1}{\frac{91775}{37}} + \frac{1}{800\,\Omega} = \frac{587360}{971}\,\Omega = F$

$F + R2 = 500\,\Omega + \frac{587360}{971} = \boxed{1104{,}9\,\Omega = RT}$

RHEIN

N°2

FECHA: / /

	(Ω)		(A)		(V)
RT	1105	IT	0,036	VT	40
R1	1000	I1	0,008	V1	8,8
R2	500	I2	0,0362	V2	18,1
R3	1000	I3	0,0006	V3	0,6
R4	800	I4	0,0008	V4	0,48
R5	800	I5	0,0013	V5	1,052
R6	1000	I6	0,0019	V6	1,9
R7	2000	I7	0,0019	V7	3,8
R8	1000	I8	0,00686	V8	6,864
R9	700	I9	0,0088	V9	6,16
R10	800	I10	0,0274	V10	21,901
RA	1800	IA	0,0006	VA	40526
RB	554	Ib	0,0019	VB	1,0526
RC	3554	IC	0,0019	VC	6,864
RD	780	ID	0,0088	VD	6,864
RE	2480	IE	0,0088	VE	21,901
Rf	605	If	0,0362	VE	21,901

a) RT = 1105 Ω

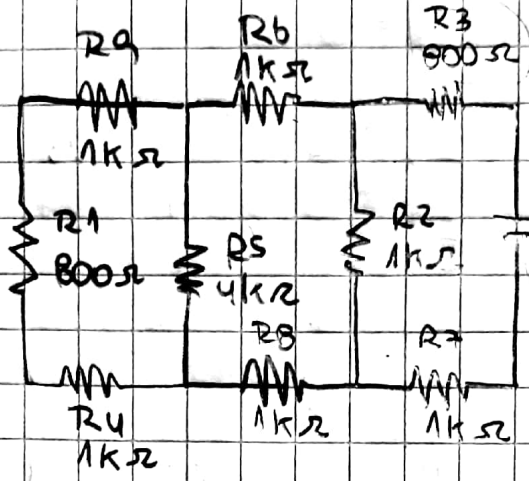
b) VB = 6,864 [V]

c) V4 = 0,48 V

d) I3 = 0,006 A v 0,6 mA

FECHA: / /

N° 3



VT = 40V
RT = 2584,18Ω
IT = 0,015A

$R1+R9+R4 = // R5 = // R6+R8 = // R2 = // R3+R7$

$R1+R9+R4 = 1000\Omega + 800\Omega + 1000\Omega = 2800\Omega = RA$

$RA + R5 = \frac{1}{2800\Omega} + \frac{1}{4000\Omega} = \frac{17}{28000} = \frac{28000}{17}\Omega = RB$

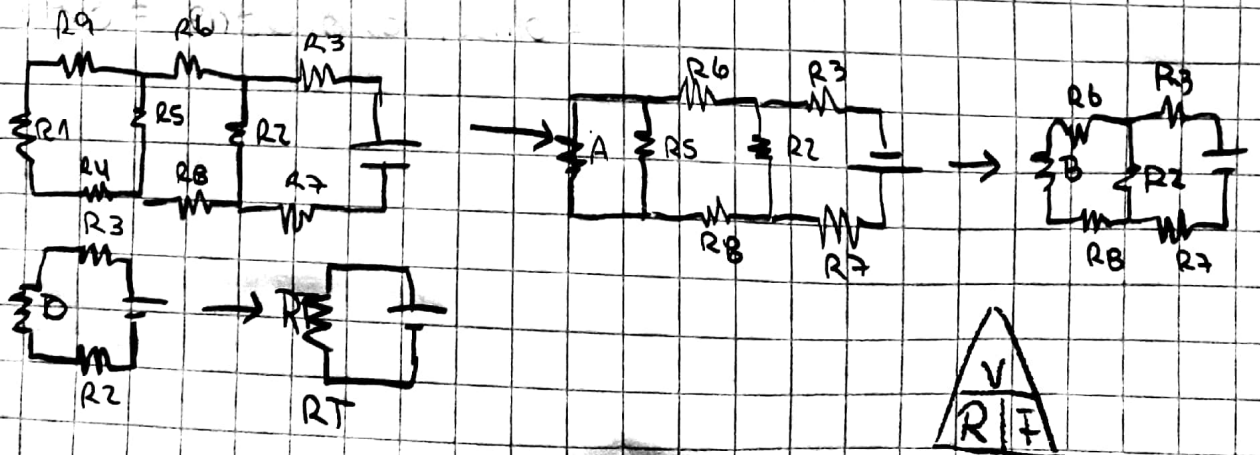
$RB + R6 + R8 = \frac{28000\Omega}{17} + 1000\Omega + 1000\Omega = \frac{62000}{17}\Omega\ RC$

$RC = \frac{1}{\frac{62000}{17}\Omega} + \frac{1}{1000\Omega} = \frac{79}{62000}\Omega = \frac{62000}{79}\Omega\ RD$

$RD + R3 + R7 = 1000\Omega + \frac{62000}{79}\Omega + 800\Omega = \frac{204200}{79}\Omega$

a) RT = 2,59kΩ

b)



RHEIN

FECHA: / /

	(Ω)
R1	800
R2	1000
R3	800
R4	1000
R5	4000
R6	1000
R7	1000
R8	1000
R9	1000
RT	2585 Ω

(A)	
I_1	= 0,0019
I_2	= 0,012
I_3	= 0,015
I_4	= 0,0019
I_5	= 0,0013
I_6	= 0,0032
I_7	= 0,015
I_8	= 0,0032
I_9	= 0,0019
IT	= 0,015 A

(V)	
V1	1,52
V2	11,225
V3	12
V4	1,52
V5	5,2204
V6	3,2
V7	15
V8	3,2
V9	1,9
VT	= 40V

a) $RT = 2585[\Omega]$
b) $VR3 = 12[V]$
c) $VR1 = 1,52[V]$
d) $IR5 = 0,0013[A]$