1) Group no 1

* Best range $E \sim 3.9\,V$

Analog; $1k\Omega/V$

R_c [Ω]	α	α_{max}	V_k	V	ΔV	δV	$V \pm \Delta V$	R_v [Ω]	$\Delta_m V$	$\delta_m V$	C	V_C
0	40	75	7.5					7.5k				
10	40	—"—	—"—					—"—				
100	39.5	—"—	—"—					—"—				
1k	35	—"—	—"—					—"—				
5k	56	—"—	0.15					150				
10k	30	—"—	0.15					—"—				

$V_C \pm \Delta V$

$$\Delta_m V = -V \frac{R_c}{R_v} = -39.5 \cdot \frac{7.5}{75} \cdot \frac{100}{7500}$$

$$\delta_m V = -\frac{R_c}{R_c + R_v} = -\frac{100}{100 + 7500}$$

$$C = -\Delta_m V$$

6 digits

choose 1 year

R_c / Ω	V	V_R	$\bar{V}$	ΔV	δV	$V \pm \Delta V$	R_V / Ω	$\Delta_m V$	$\delta_m V$	c
0	3.999,60									
10	3.999,53									
100	3.999,64									
1k	3.999,31									
5k	3.997,91									
10k	3.995,93									

2) Analog

Explain what is happening here

	k	L	Lmax	V_R	Vin	Vout	$\frac{V_{out}}{V_{in}}$
a	9	40	95	7.5		3.589,21	
	5	–11–	–11–	–11–		1.994,64	
	1	–11–	–11–	–11–		0.398,999	
c	9	–11–	–11–	–11–		3.559,26	
	5	–11–	–11–	–11–		1.946,69	
	1	–11–	–11–	–11–		0.395,515	
d	9	3	–11–	0.15	3.989,31		
	5	0.5	–11–	–11–	–11–		
	1	0	–11–	–11–	–11–		
b	9	36	–11–	7.5	–11–		
	5	44	–11–	3	–11–		
	1	35.5	–11–	0.75	–11–		

Vin Vout Rin

a A, D, 1k

b D, A, 1k

c A, D, 1M

d D, A, 1M