

. BASIC OP AMP APPLICATIONS - PRE-LAB FORM .

NAME1: _____ NAME2: _____

Fill out form with all answers and attach your calculations as proof of work.

SUBTRACTOR CASES #1 and #2

		Case #1	Case #2
V_1	V_2	V_o with $V_{OFF} = 0$	V_o with $V_{OFF} = 5 \text{ mV}$
1V	1.3V		
10 mV	14 mV		

SUBTRACTOR CASE #3 1% MISMATCH ONLY, $V_{off} = 0$

Large differential I/P			Small differential I/P		
V_1	V_2	V_o	V_1	V_2	V_o
1V	1.3V		1V	1.005V	

SUMMING AMPLIFIER

CASE	STEP	V_{OFF}	V_1	V_2	V_3	V_o
1 (DC)	1	0	0.5V	1V	1.5V	
1 (DC)	2	3 mV	0.5V	1V	1.5V	
1 (DC)	3A	0	10 mV	20 mV	-50 mV	
1 (DC)	3B	3 mV	10 mV	20 mV	-50 mV	
2 (AC)	1	0	0.5 V_p	0.5 V_p	0.5 V_p	

PHASE SHIFTER

A	1000 Hz $\Phi = 210^\circ$ to 360°	POT =
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B	Frequency	Minimum phase	Maximum phase
B	100Hz (100k POT)		
B	10 kHz (100k POT)		