

**CASE WESTERN RESERVE UNIVERSITY**  
Case School of Engineering  
Department of Electrical Engineering and Computer Science

**ENGR 210. Introduction to Circuits and Instruments (4)**

**Homework Set No. 8**

References: [T&R4] sections 4-4, 4-5, 4-7

Issued 3/3/04

Due 3/17/04

**MULTIPLE OP-AMP CIRCUITS**

- 1) (5 pts) Problem 4-32, p. 201. Summing amplifier.
- 2) (5 pts) Problem 4-34, p. 201. Cascaded amplifiers.

**OP-AMP COMPARATOR**

- 3) (5 pts) Problem 4-46, p. 203. Use power supply for reference.
- 4) (5 pts) Problem 4-47, p. 203. Use battery reference.

**NOTE: Please put your section code AND your CWRU e-mail next to your name at the top of the page.** Section codes are

MA (Monday Afternoon)  
ME (Monday Evening)  
TA (Tuesday Afternoon)  
TE (Tuesday Evening)  
WA (Wednesday Afternoon)  
WE (Wednesday Evening)

**Beginning with Homework 8 there will be NO acceptance of any homework assignment AFTER 11am of the morning they are due. Homework not turned in during class MUST be placed in Locker #146 in the Glennan 308 Lab before 11am. Homework assignments placed in Prof. Merat's door and any assignment turned in after 11am will not be accepted.**