بسم الله الرحمن الرحيم

King Fahd University of Petroleum and Minerals
Department of Electrical Engineering

Semester I 2005/2006   **EE303   Electronics II**   **Major (2)**
ATTEMPT ALL QUESTIONS
TIME ALLOWED 50 Minutes

Q1. Assuming ideal operational amplifier, obtain an expression for the input impedance of the circuit shown in Fig. 1. Comment on your result showing what this circuit simulates.

Q2. The block diagram shown in Fig. 2 is a possible solution for designing an analog computer to solve differential equations. You are requested to design, using ideal operational amplifiers, the following:
   1. a circuit that can perform the summation
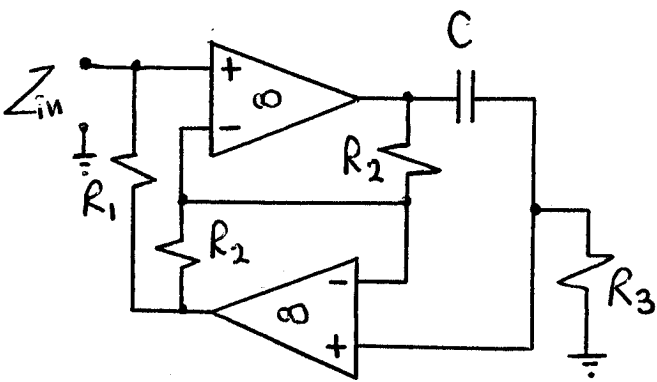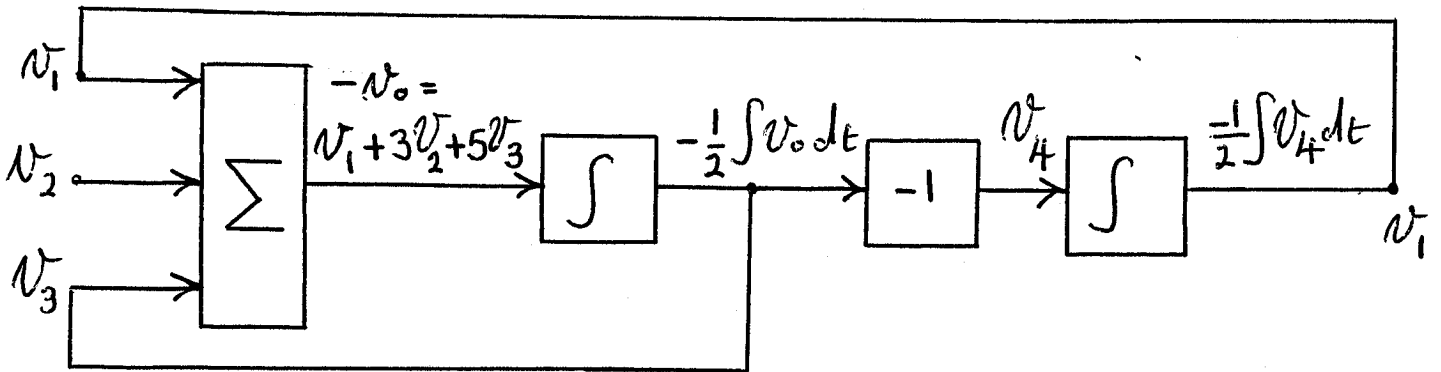   2. a circuit that can perform the integration

Fig. 1

Fig. 2