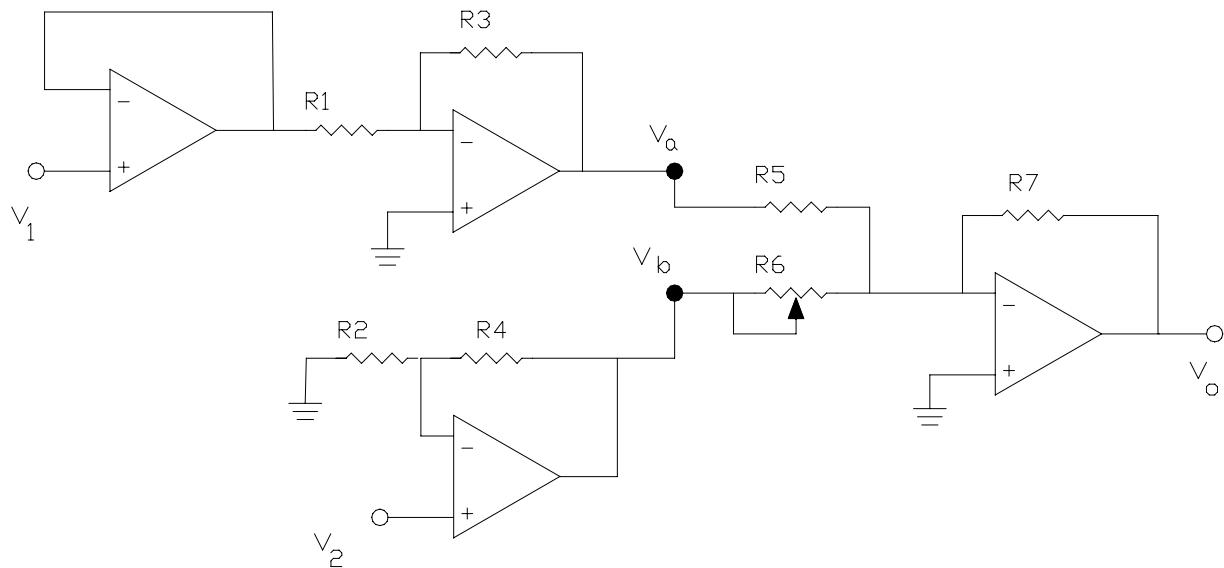


ET 438a  
Continuous and Digital Control

**Homework**



For the circuit above the resistor values are:

$$\begin{array}{ll}
 R_1 = 470 \text{ k}\Omega & R_3 = 100 \text{ k}\Omega \\
 R_2 = 10 \text{ k}\Omega & R_5 = 82 \text{ k}\Omega \\
 R_4 = 8.2 \text{ k}\Omega & R_6 = \text{set to } 187 \text{ k}\Omega \\
 R_7 = 270 \text{ k}\Omega &
 \end{array}$$

The values of input voltage are:  $V_1 = +3 \text{ Vdc}$   
 $V_2 = -0.10 \text{ Vdc}$

Find the values of  $V_a$ ,  $V_b$  and  $V_o$  for the circuit