Chapter 5, Solution 52

Design an op amp circuit such that

$v_o = 4v_1 + 6v_2 - 3v_3 - 5v_4$

Let all the resistors be in the range of 20 to 200 kΩ.

Solution

A summing amplifier shown below will achieve the objective. An inverter is inserted to invert v_2. Since the smallest resistance must be at least 20 kΩ, then let R/6 = 20kΩ therefore let R = **120 kΩ**.