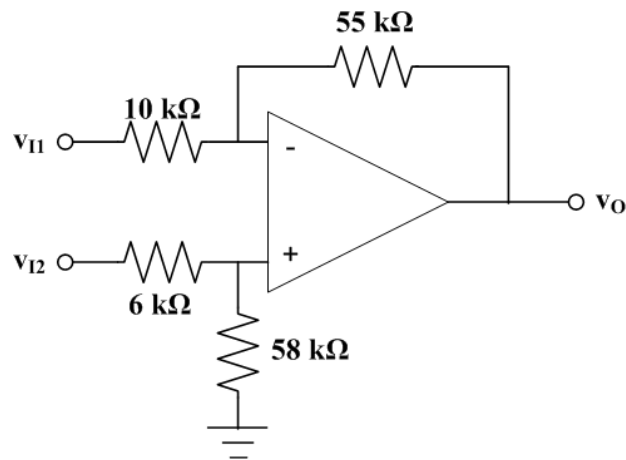


1. Design a difference amplifier such that the differential gain is 50 V/V, the minimum differential input resistance is 50k Ω , and the common mode gain is zero.
2. For the following circuit, derive and solve for the differential and common mode gain and the CMRR.



3. Design an instrumentation amplifier for a differential gain that is adjustable between 5 and 500 V/V. Assume that the gain of the second stage is 2 V/V.