

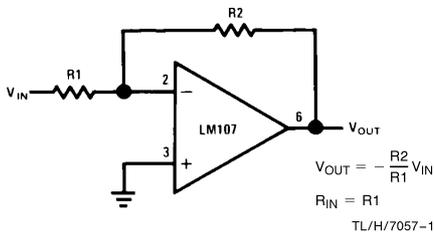
# Op Amp Circuit Collection

National Semiconductor  
Application Note 31  
February 1978

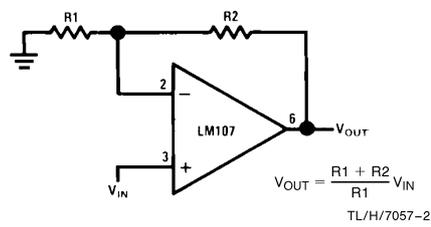


## SECTION 1—BASIC CIRCUITS

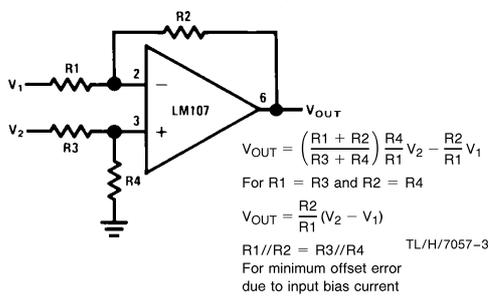
**Inverting Amplifier**



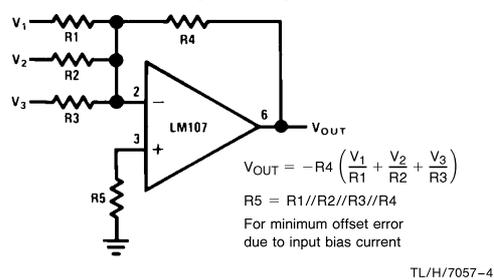
**Non-Inverting Amplifier**



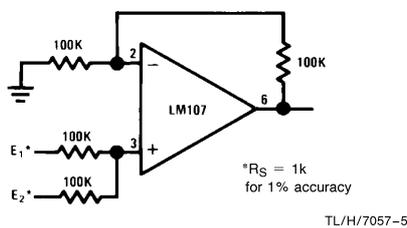
**Difference Amplifier**



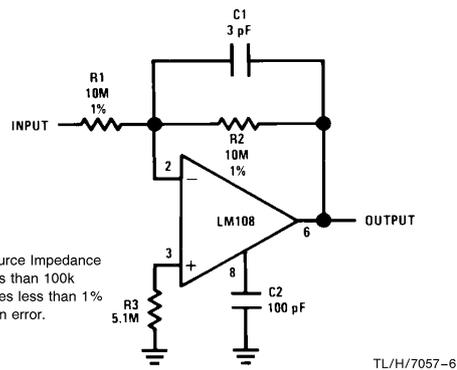
**Inverting Summing Amplifier**



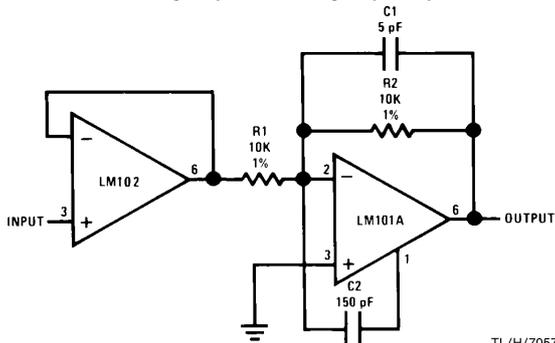
**Non-Inverting Summing Amplifier**



**Inverting Amplifier with High Input Impedance**



**Fast Inverting Amplifier with High Input Impedance**



**Non-Inverting AC Amplifier**

