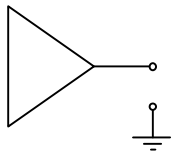
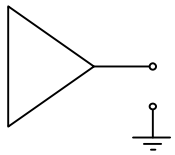
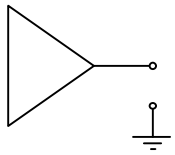
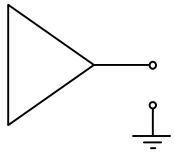
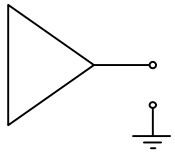
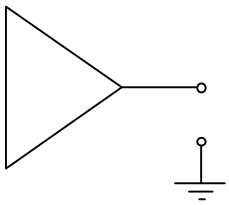
Op-amps

Inverting Amplifier 	V_o =
	R_{in} = _____
Non-Inverting Amplifier 	V_o =
	R_{in} = _____
Summing Amplifier 	V_o =
	R_{in} = _____ for V_1 R_{in} = _____ for V_2
Voltage Follower 	V_o= _____
	R_{in} = _____
Differential Amplifier 	V_o =
	R_{in} = _____ for V_2 R_{in} = _____ for V_1

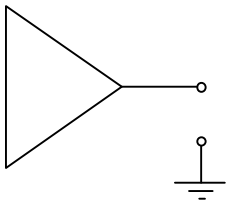
Limitations of Practical Operational Amplifiers

1. The output voltage of signal-type op-amps is limited to about 1 to 2 V below the supply voltage (which is typically ±15 V). It will depend on the output current beyond about 10 mA.

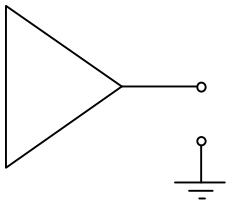


2. The output current of signal-type op-amps is limited to about 10-20 mA.

   (However, Power Op-Amps can handle much larger voltages and output currents.)



3. The gain setting resistors should be kept within a range of about 1 k to 1 M to prevent noise, drift, and excessive circuit loading.



4. The gain of a typical op-amp should be limited to about 100 or less to prevent offset and drift