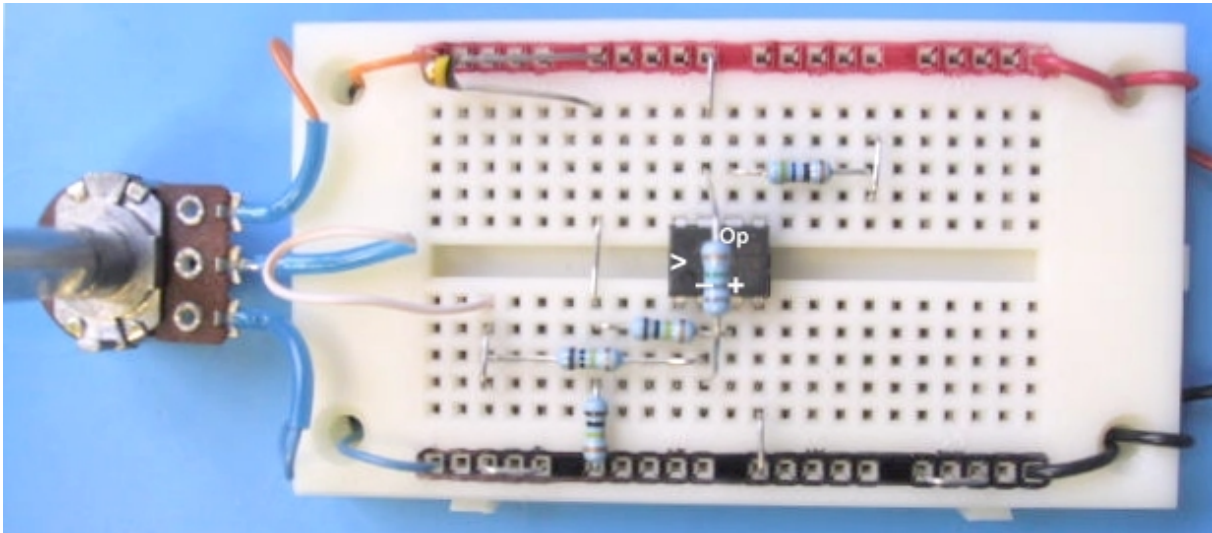
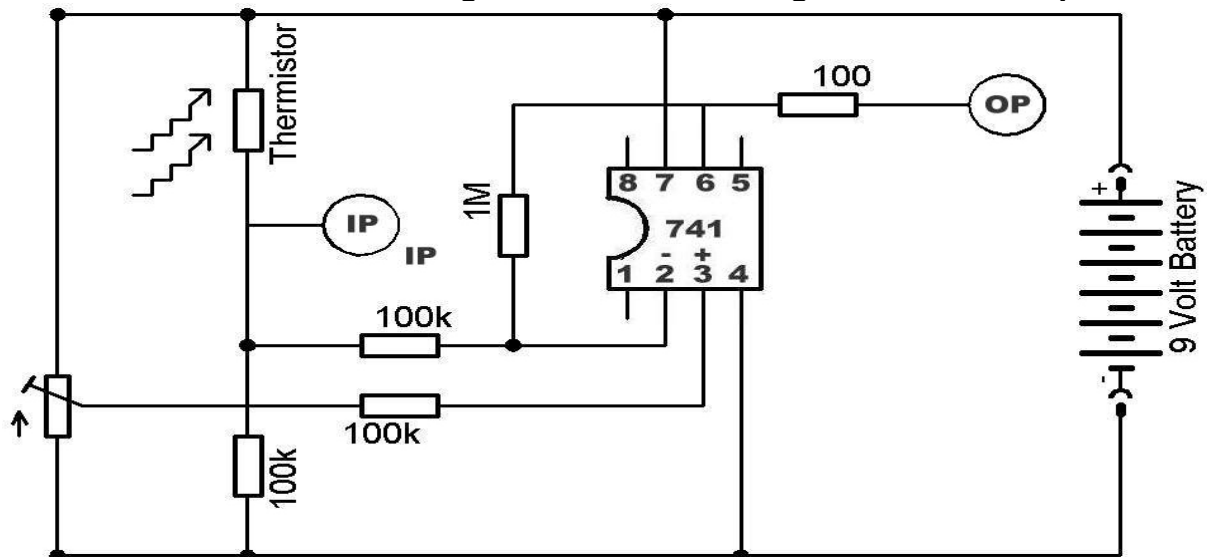


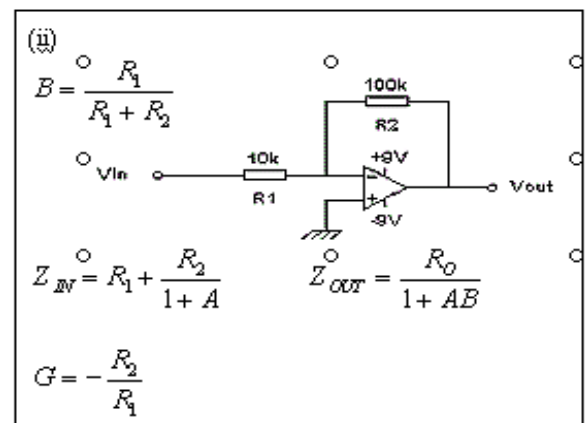
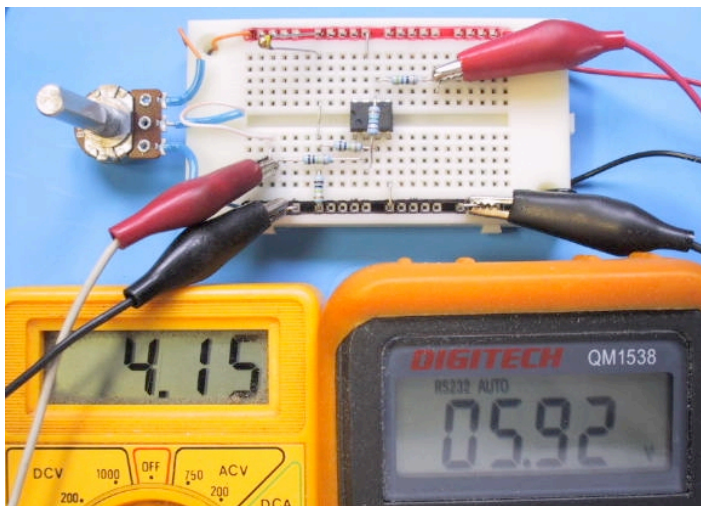
741 Op Amp – Inverting Amplifier



- Adjust the 100k variable resistor until the OP voltage is approximately 1/2 the supply
- How sensitive is the circuit ? How could it be used to measure temperature ?
- How could it be modified to give a POSITIVE change in OP with temperature rise ?



- Calculate the Voltage Gain of the above circuit by completing 19747 Task 3 (PTO)
- Connect TWO DVM's to the INPUT and OUTPUT to measure DC voltage changes
- Adjust the variable resistor until there is 6 volts at the OUTPUT at room temperature.
- Record INPUT voltage. Gently warm thermistor until 2 volts is obtained at the OP. Record the second input voltage and calculate the voltage GAIN from these readings

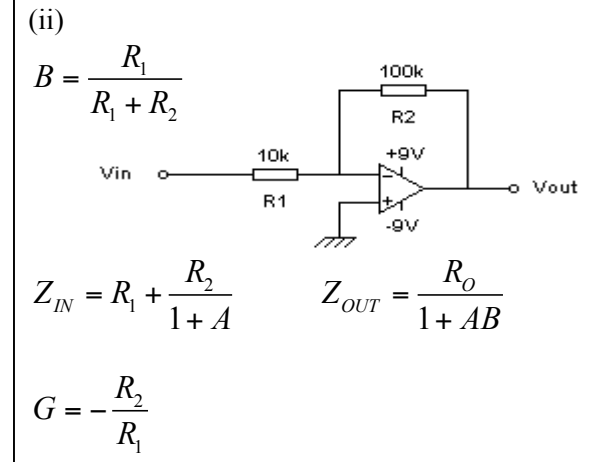
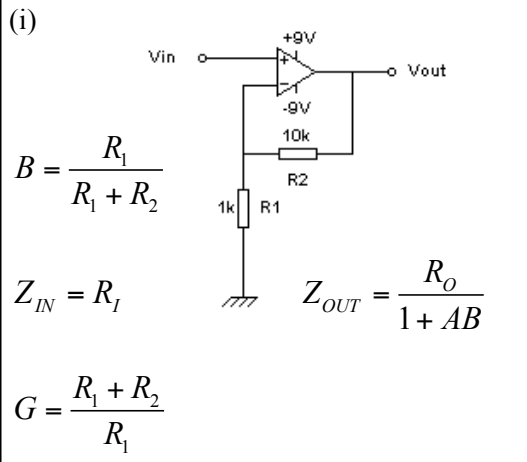


Voltage gain = _____ = _____

- 3 (c) Using the following symbols and typical op-amp values, calculate the voltage gain, and input and output impedances for these op-amp circuits.

Symbols: G = voltage gain, Z_{in} = input impedance, Z_{out} = output impedance

Typical op-amp values: A = open loop gain = 100,000 R_O = output resistance = 100 Ω
 R_I = input resistance = 2M Ω



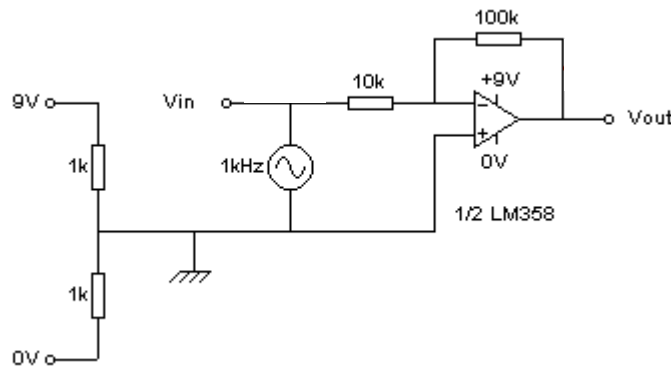
Voltage gain = _____ = _____ Voltage gain = _____ = _____

Input impedance = _____ = _____ Input impedance = _____ = _____

Output impedance = _____ = _____ Output impedance = _____ = _____

PC 3.3

3 d (i)



Input voltage (V, p-p)	Output voltage (V,p-p)	Voltage gain (measured)	Voltage gain (calculated)

If your measured and calculated values differ give a reason why this might be so.
