Experiment – 3.2

Student Name:Alasso **UID:**
Branch: **Section/Group-**
Semester: **Date of Performance:**
Subject Name: **Subject Code:**

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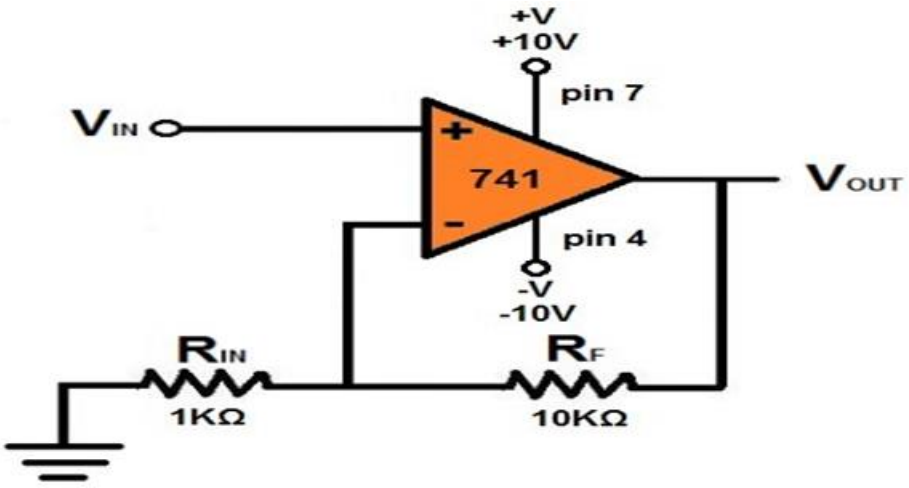
Aim:

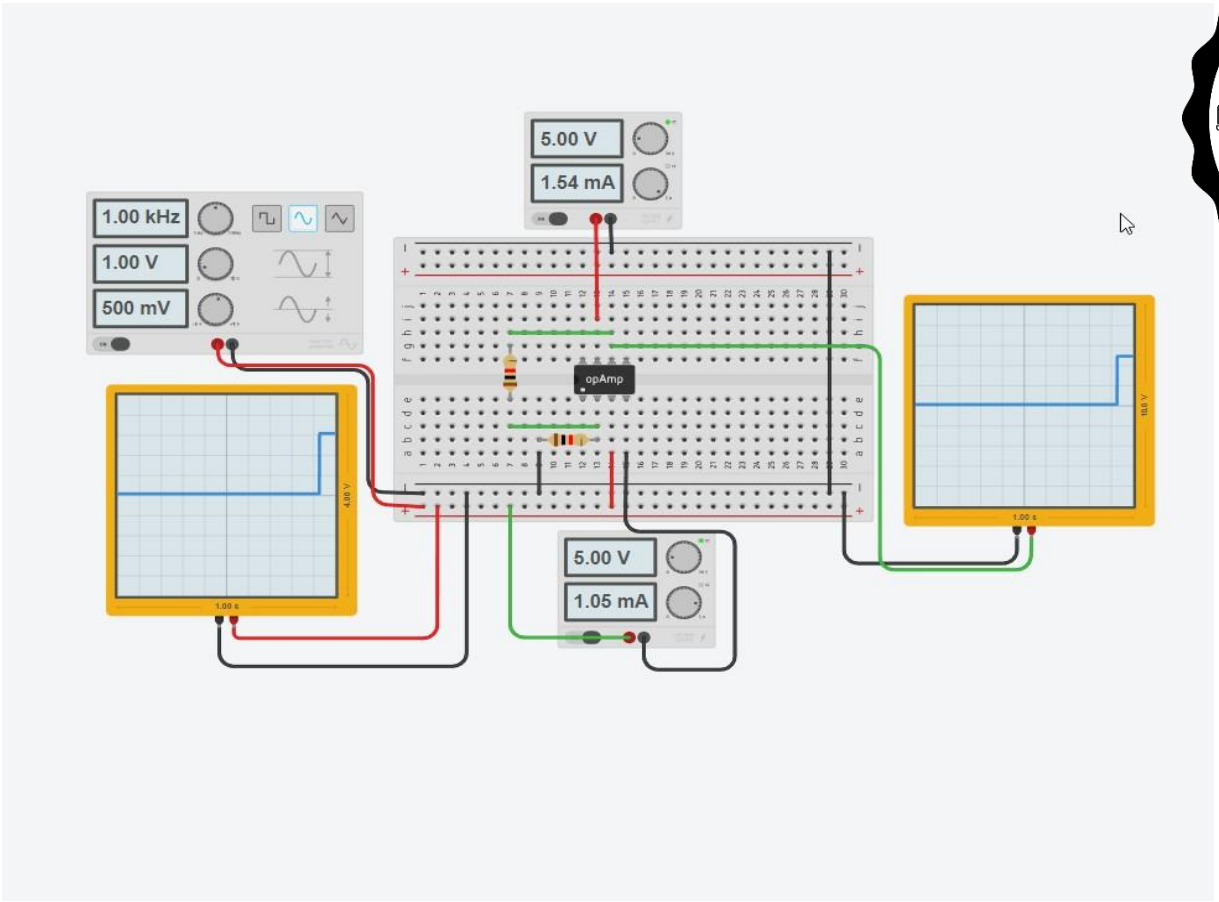
To measure gain of non-inverting operational amplifier.

Apparatus:

Op-AMP IC, CRO, Resistor, Multimeter, Function Generator, Bread board,Connecting Wires

Circuit Diagram:





Steps for experiment:

1. Connect the circuit as shown in the figure.
2. Connect supply voltage to I/P.
3. Note the values of RF & Rin.
4. Note V_{IN} & V_{OUT} with the digital multimeter.
5. Repeat steps 2 & 3 for different values of RF &Rin.

Calculations/Theorems /Formulas used

Output Voltage $V_O = V_{IN}(1+R_F/R_{in})$
Gain == [Vo/Vin]

Observations/Discussions:

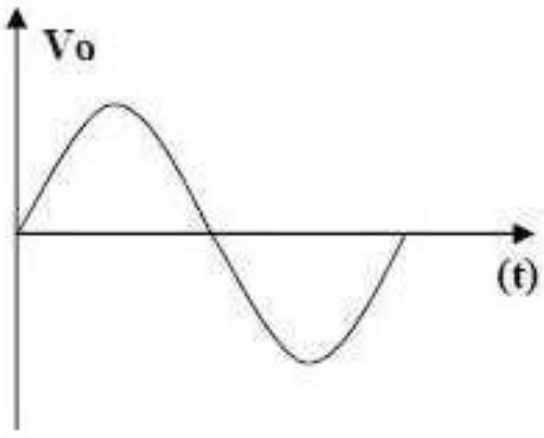
Sr. No.	Rf	Rin	Vin	Vo	Gain[Vo/Vin]
1	**500**	**100**	**5**	**30**	**6**
2	**200**	**100**	**5**	**15**	**3**
3	**300**	**200**	**5**	**12.5**	**2.5**

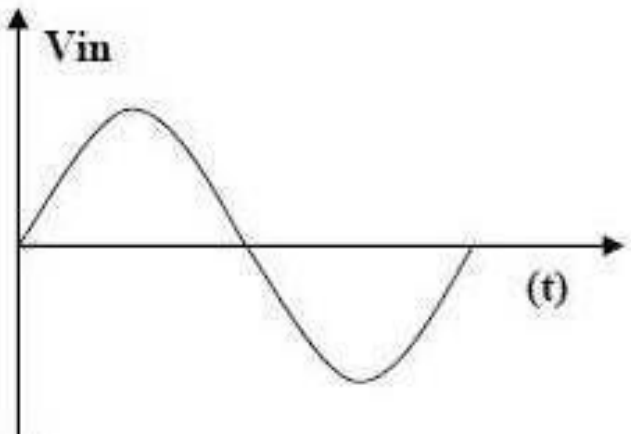
Percentage error (if any or applicable):

No Error

Result/Output/Writing Summary:

In non-inverting amplifier O/P is in phase with I/P with I/P. The waveformsfor non-inverting and amplifier are shown in figure below:





Graphs (If Any):

No Graphs Used

Learning outcomes (What I have learnt):

1. Learnt about other workings of Non-Inverting OP Amplifiers.
2. Learnt about the need of multimeter to get values of voltages.
3. Learnt about checking the results in oscilloscope.
4. Learnt about the different functions of types of Operational Amplifiers.

Evaluation Grid:

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Worksheet completion including writing learning objectives/Outcomes. (To be submitted at the end of the day).		10
2.	Post Lab Quiz Result.		5
3.	Student Engagement in Simulation/Demonstration/Performance and Controls/Pre-Lab Questions.		5
	Signature of Faculty (with Date):	Total Marks Obtained:	