# EAST WEST UNIVERSITY

Course Name : Electronic Circuits

Course Code : CSE251

Section No :06

Group No :

Experiment No : 05

Name of the Experiment : Signal Integration and Differentiation Using 741 Op-Amp

Date of allocation :

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Objectives: 1. To study the responses of Op-Amp integrator to sinusoid and square waveforms. 2. To study the responses of Op-Amp differentiator to sinusoid and triangular waveforms.

Introduction: Operational Amplifier (Op-Amp) is a differential amplifier and can perform mathematical operations such as addition, subtraction, integration, differentiation, etc.

**Circuit diagram:**

# integrator circuit:

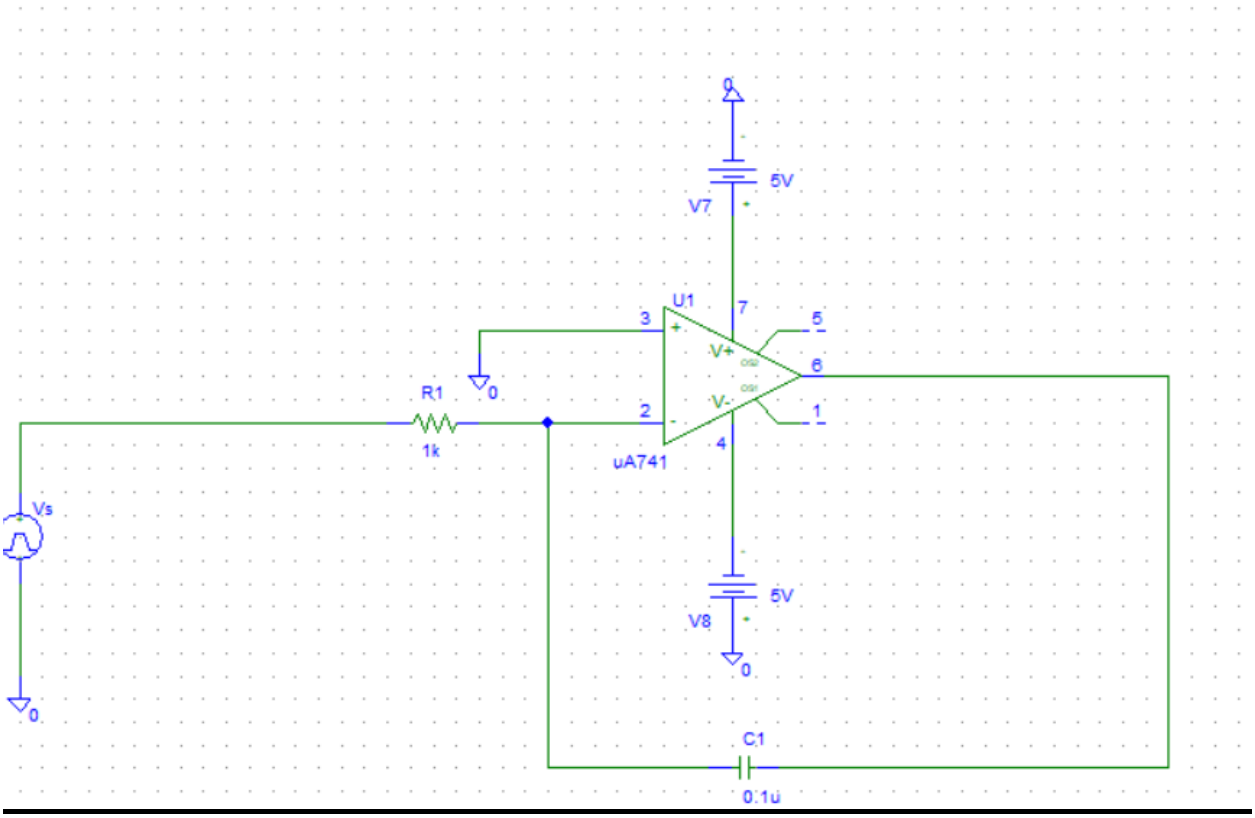



Figure 1. An Op-Amp integrator circuit

# differentiator circuit:

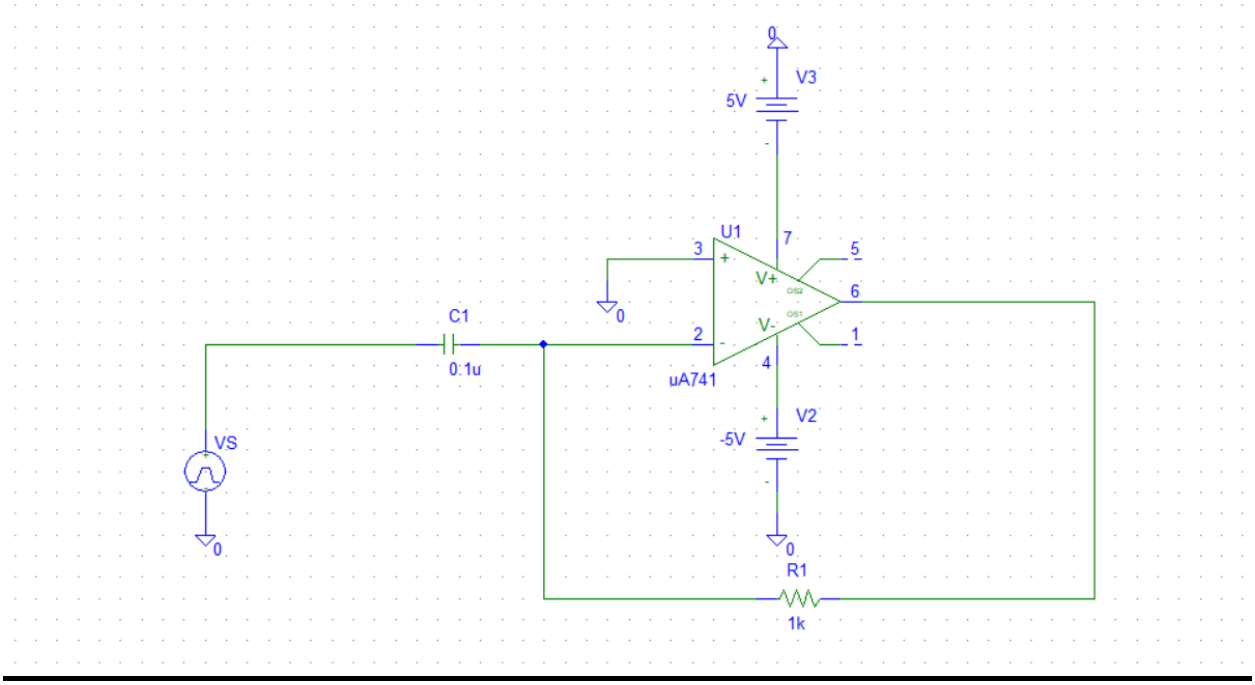
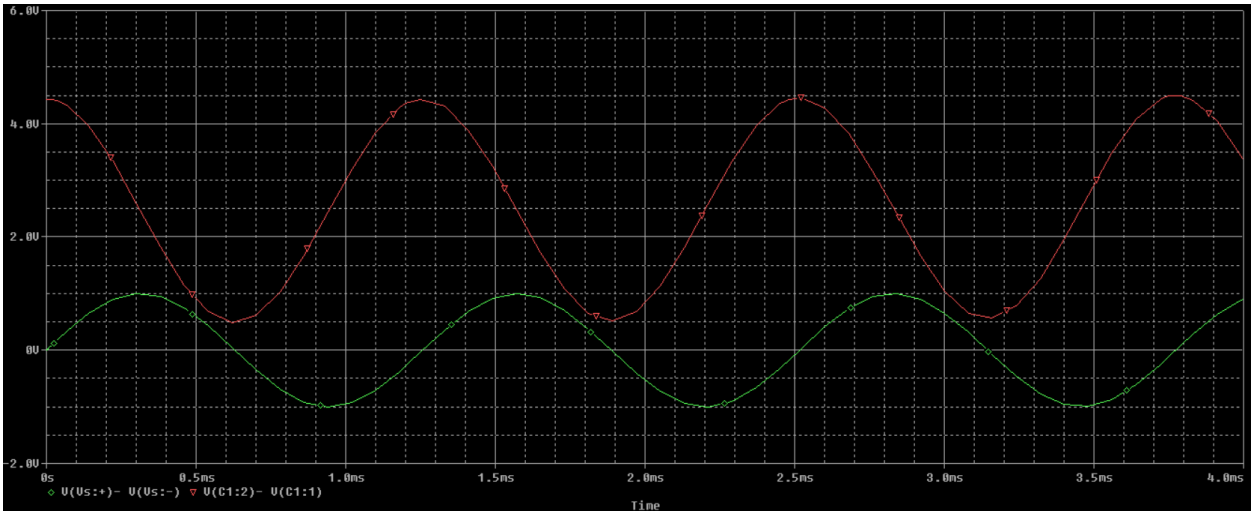


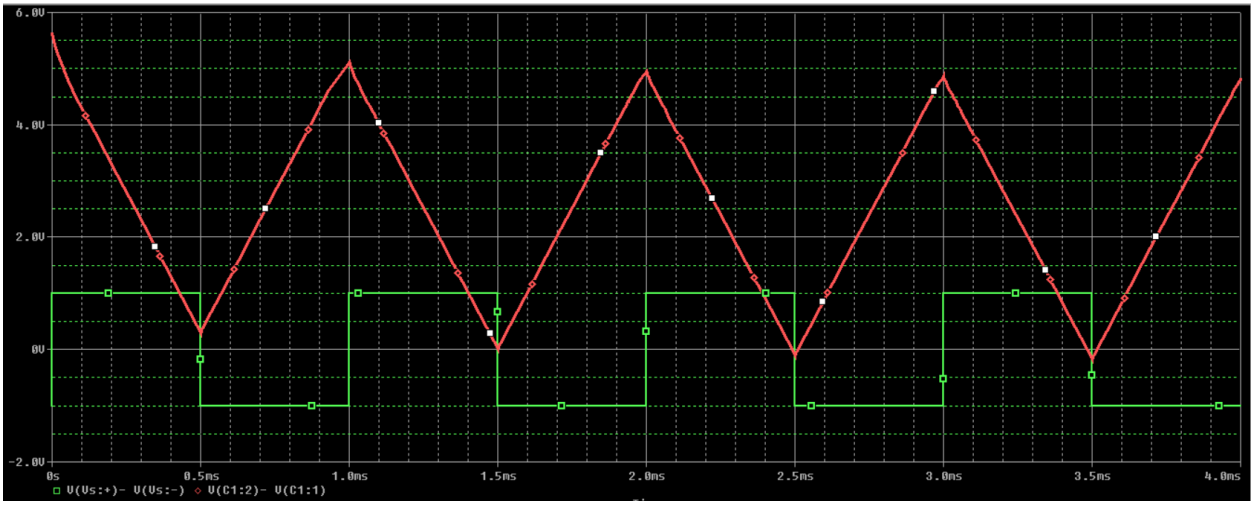

Figure 2. An Op-Amp differentiator circuit.

## Post-Lab Report Questions:

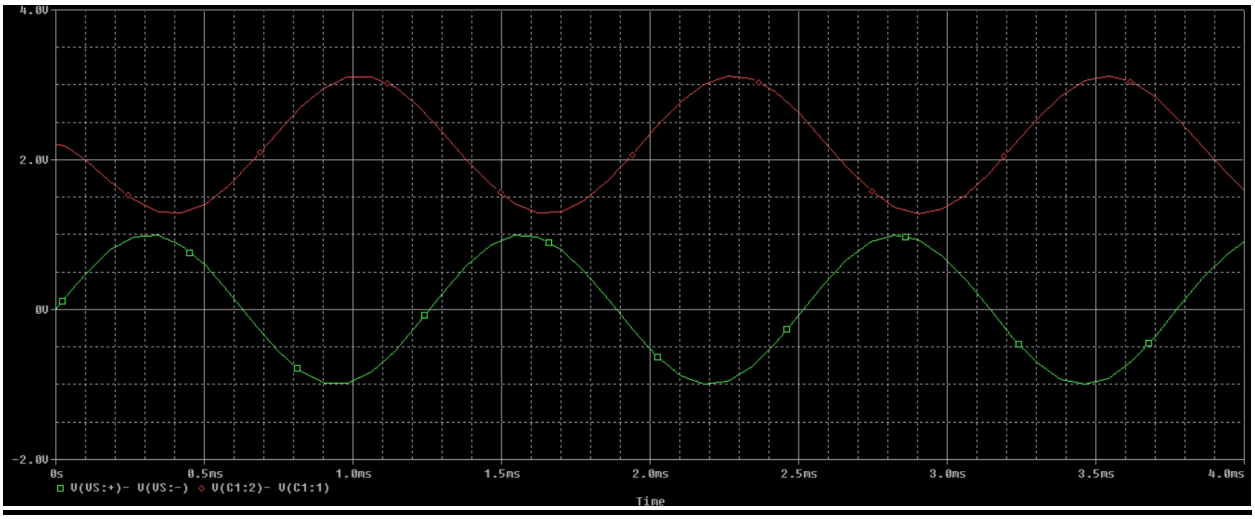
## Answer:

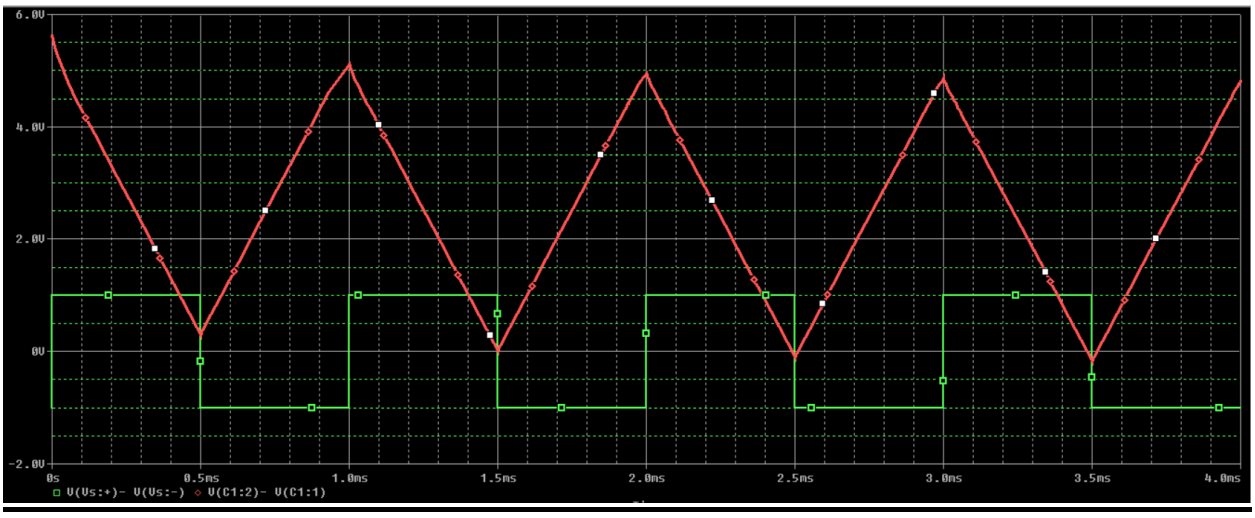
# Integrator:



# Differentiator:




## Conclusion:

We connect this circuit using Pspice software. I think if we could do this same experiment in the lab, the measure value would change a little bit and most importantly we could learn how to connect the circuit for real life.