

Studentsgroup:

Date:

Professor:

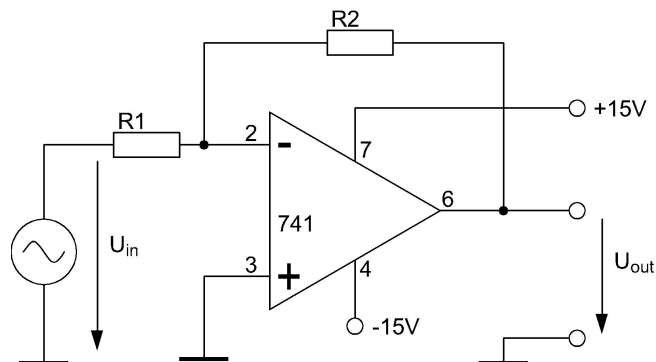
Responsible:

Group Members:

Task 8:

## Operational Amplifier

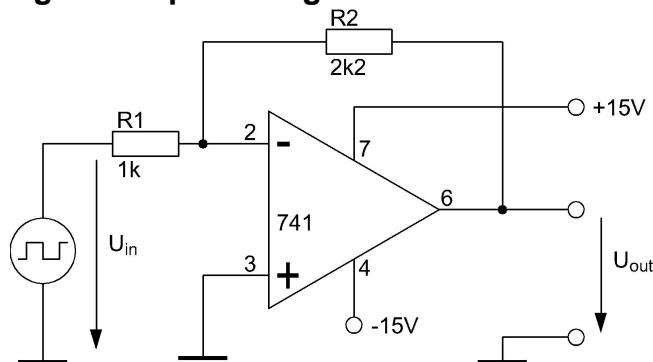
### 1. Voltage gain versus frequency for an inverting amplifier



$U_{in} = 100mV_{RMS}$  sinewave

Measure the voltage gain  $v = U_{out} / U_{in}$  for an inverting amplifier in the frequency range of 1kHz to 2MHz for three different gains of 1, 10 and 100. R1 is constantly 1k $\Omega$  and the input voltage is 100mV. The gain is to be shown in a logarithmic scale as well as the frequency.

### 2. Slew rate and range of output voltage



$U_{in} = 15V_{pp}$  squarewave,  $f = 5kHz$

Measure the maximum velocity of rise of output voltage (slew rate) and the range of output voltage using an oscilloscope. For this measurement the amplifier has to be overdriven.