

# Electronics

## Variable gain amplifier with opamp

**Problem 1.-** In a sound mixer we want to amplify a signal from a maximum gain of  $A = 10$  to a minimum of  $A = -10$

Design an amplifier with those characteristics.

**Solution:** The circuit shown below would solve the problem. The first stage can vary the gain from -1 to 1 and the second stage provides an additional factor of -10.

