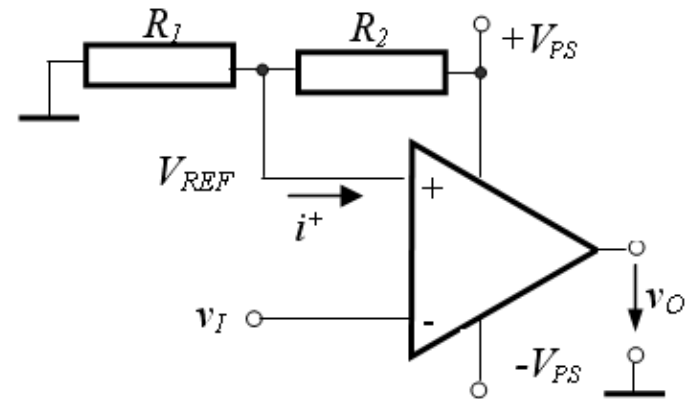


## Homework 4 – Simple comparators



$$R_1 = 4\text{k}\Omega, R_2 = 8\text{k}\Omega, V_{PS} = \pm 12 \text{ V}.$$

- Deduce and plot VTC  $v_O(v_I)$ . What is the application of the circuit?
- Plot  $v_O(t)$  for  $v_I(t) = 5\sin 1000t$  [V].
- Plot  $v_O(t)$  for  $v_I(t) = 3\sin 1000t$  [V]. What is the minimum value of  $v_I$  for which  $v_O$  switches?