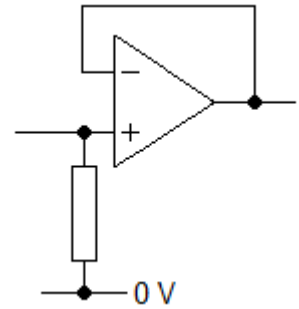


1 Add these labels to this voltage follower system.

- op-amp
- input terminal
- feedback loop
- output terminal
- pulldown resistor



2 Complete the sentences for a voltage follower. Choose from these words.

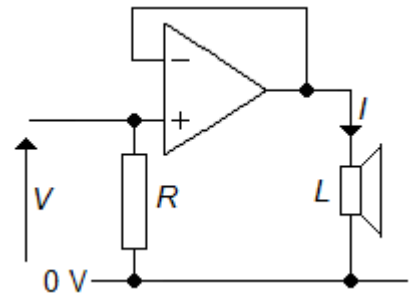
current feedback infinite one op-amp saturate voltage

A voltage follower has a gain of _____ provided that its output does not _____ .
 Negative _____ results in the input and output having the same _____ ,
 provided that the open-loop gain of the _____ is effectively _____ .
 The pull-down resistor allows the small bias _____ from the op-amp input to get to 0 V.

3 Here are some statements about the circuit shown opposite. Which of them are correct?

- The voltage follower provides a large power gain.
- The op-amp provides the current in the loudspeaker.
- The signal source provides the current in the resistor.

There is the same current in the resistor and the loudspeaker.



4 Complete the table for the circuit shown above, where
 V is the amplitude of the a.c. signal at the input
 R is the resistance of the pull-down resistor
 L is the resistance of the loudspeaker
 I is the **peak** current at the op-amp output
 P_{in} is the **mean** power drawn from the signal source
 P_{out} is the **mean** power delivered to the loudspeaker

V	R	L	I	P_{in}	P_{out}
250 mV	47 k Ω	16 Ω			
3.2 V		8 Ω		1 mW	
	100 k Ω	4 Ω	500 mA		