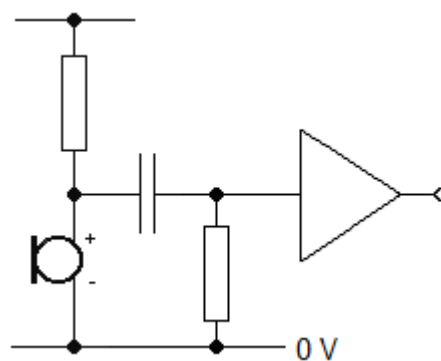


1 Label each component of the system opposite.
Use these labels.

- amplifier
- capacitor
- supply rail
- microphone
- pullup resistor
- pulldown resistor



2 Link each **component** of the above system with its **function**.

component
amplifier
capacitor
supply rail
microphone
pullup resistor
pulldown resistor

function
sound-to-current converter
current-to-voltage converter
provides bias for the microphone
holds average signal at zero volts
increases the amplitude of a signal
blocks d.c. but transmits a.c. signals

3 Complete the table for an amplifier.

V_{in}	V_{out}	G
+2.5 mV	+50 mV	
+4 mV	-800 mV	
-6 mV		+25
	2.4 V	-40

4 Link each **term** used for an amplifier with its **meaning**.

term
gain
ideal
linear
distortion
saturation

meaning
extra a.c. signals added by the amplifier
where the output voltage has reached a limit
linear amplifier which saturates at supply levels
ratio of output signal amplitude to input amplitude
gain independent of amplitude when not saturated