

Special Problem 1.7-2

Homer has designed a digital inverter using his very own technology (i.e., not CMOS).

This inverter exhibits a transfer function with the following characteristics:

1. $V_{OL} = 0.2 \text{ V}$
2. $V_{OH} = 4.9 \text{ V}$
3. Its **transition region** extends from 2.2 V to 3.9 V

Determine V_{IL} , V_{IH} , and **both** noise margins for Homer's inverter.