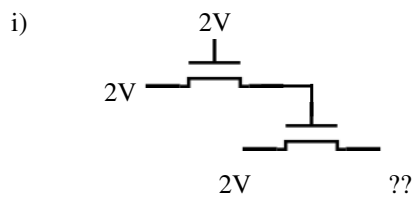
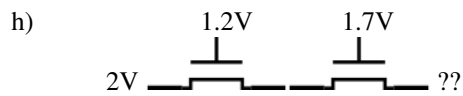
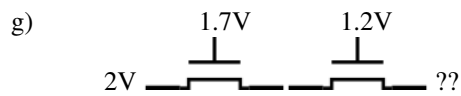
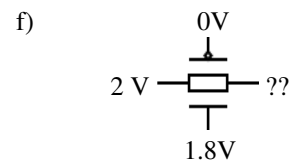
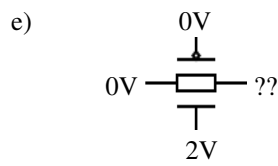
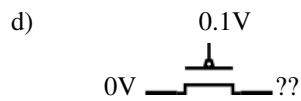
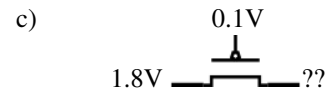
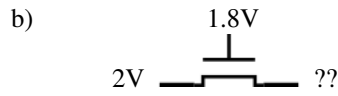
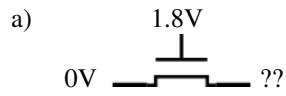


Homework #4: Pass transistors
ECEn 451
Dr. David A. Penry

1. For each of the following circuits, calculate the unknown steady-state voltage assuming that there is a path of “on” transistors through the circuit initially. Assume V_{tn} is 0.4 V and V_{tp} is -0.5V:



-
2. Why are the pullups of static CMOS gates always made up of pMOS transistors and the pulldowns always made up of nMOS transistors?