1. Examples handout questions 21-26

2. The lecture notes show an example of a CMOS NAND gate with two inputs. However, many of the boolean functions discussed in lecture and in the assignments require logic gates with 3 inputs.

(a) Draw a CMOS NAND gate with three inputs.

(b) Draw a NMOS logic NOR gate with three inputs.

(c) The resistance of a MOSFET that is conducting is small but non-zero. For the NAND and NOR gates you drew above, identify what parts of the circuit will increase in resistance as the number of inputs increases. Describe how performance might suffer in a NAND or NOR gate with a very large number of inputs.