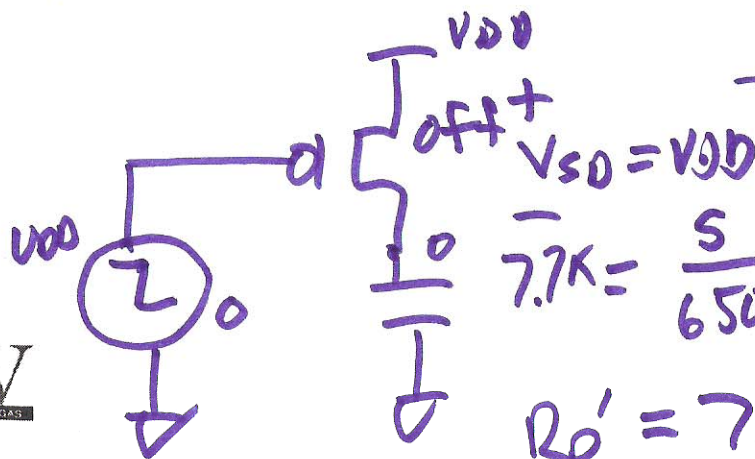
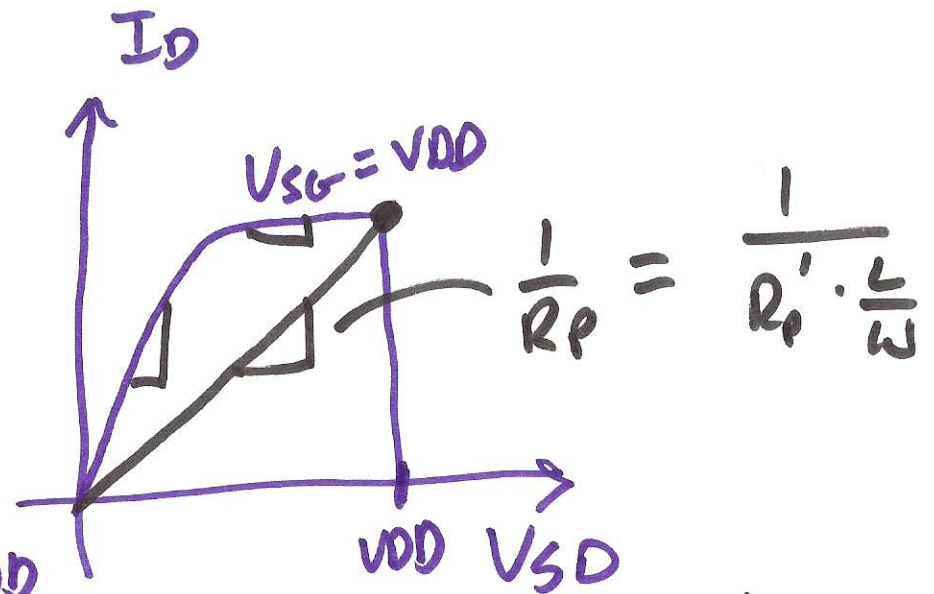
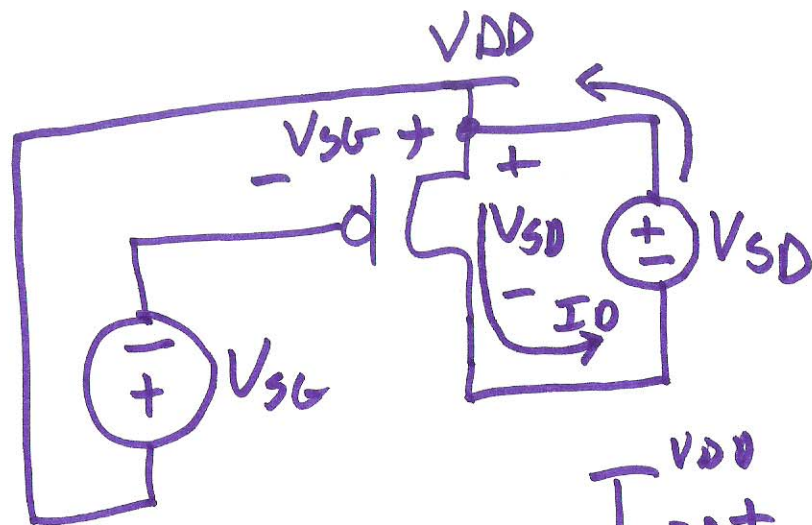


EE 421 / ECG 621

Digital IC Design

Lecture 18

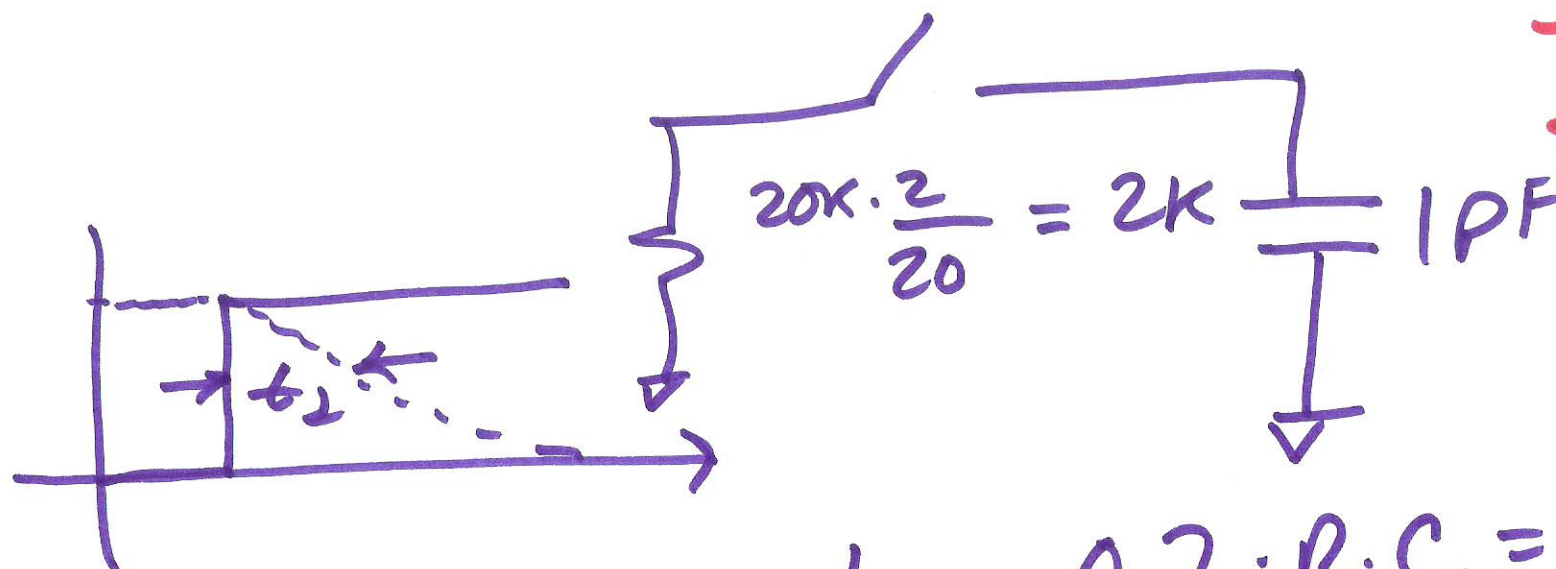
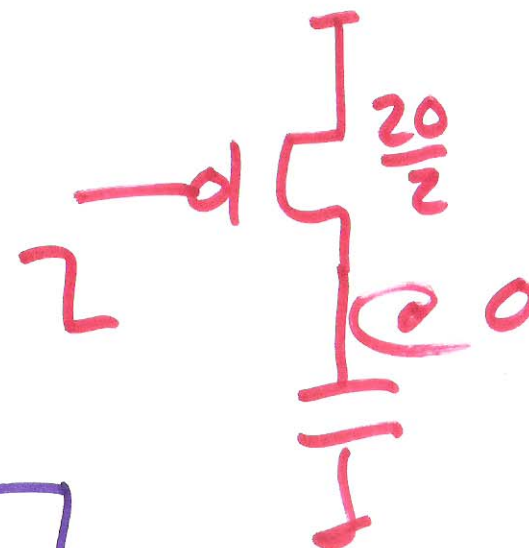
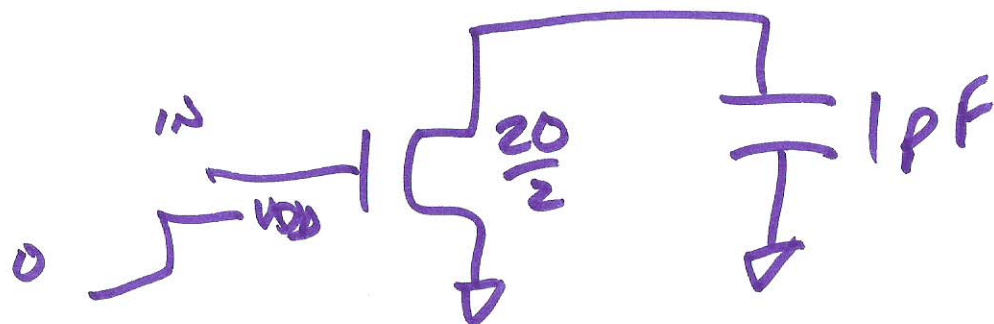
Oct. 30, 2013



$$R_P = \frac{V_{DD}}{I_D} = R_P' \cdot \frac{L}{W}$$

$$R_P' = 7.7 \text{ K} \cdot \frac{10}{2} = 38.5 \text{ K}$$

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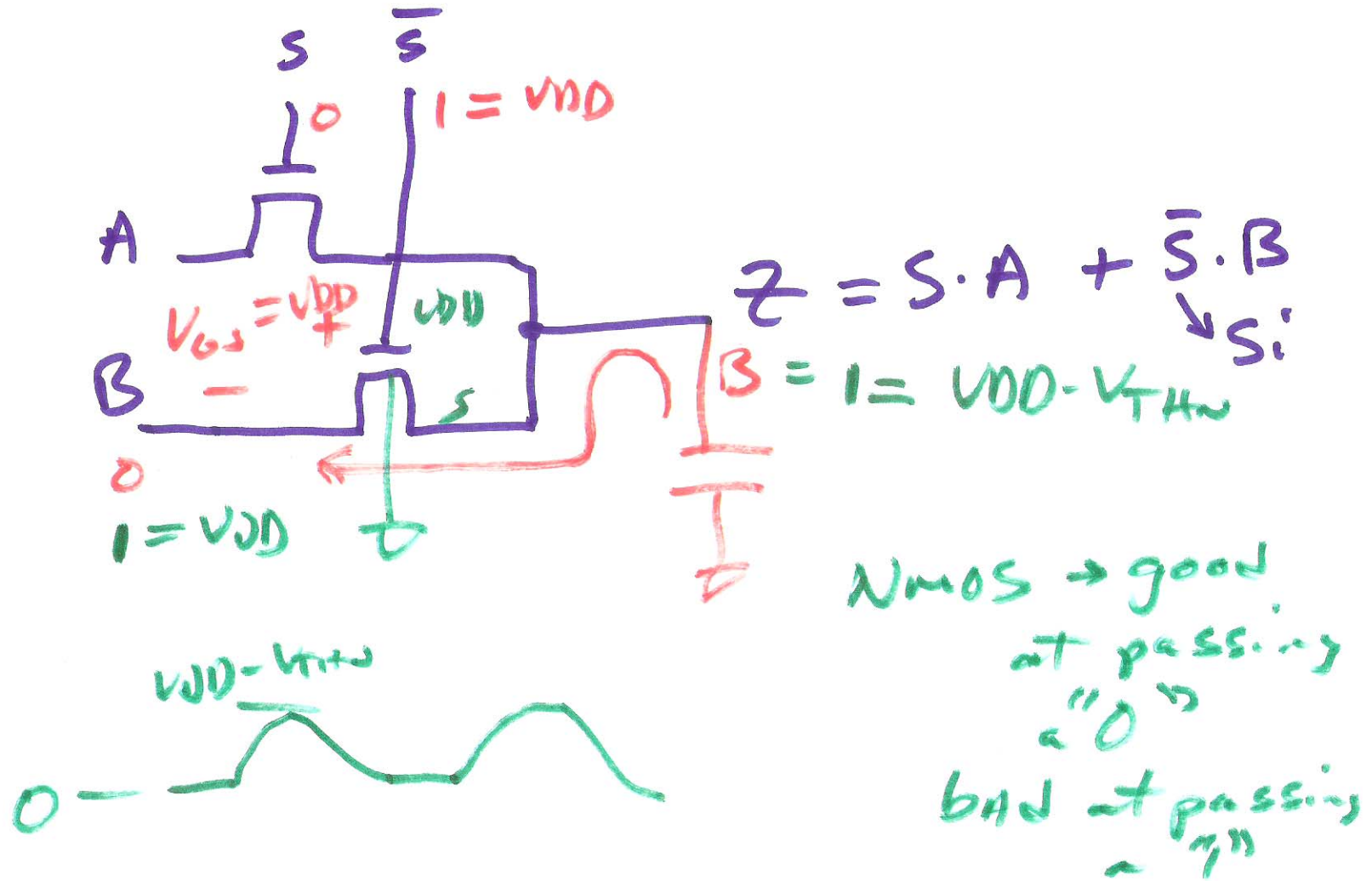
$$t_d = 0.7 \cdot R \cdot C = 0.7 \cdot 2K \cdot 1pF$$

$$= \underline{\underline{1.4ns}}$$

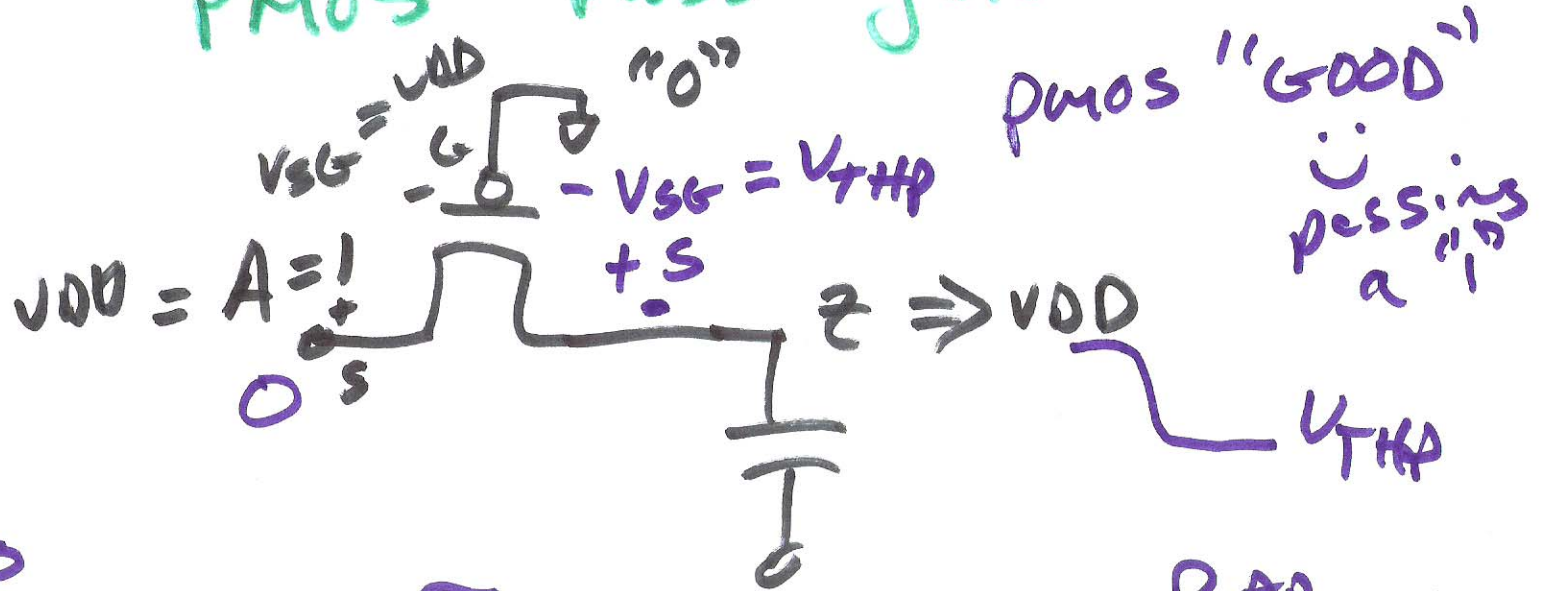
2)

De-MUX (demultiplexer)

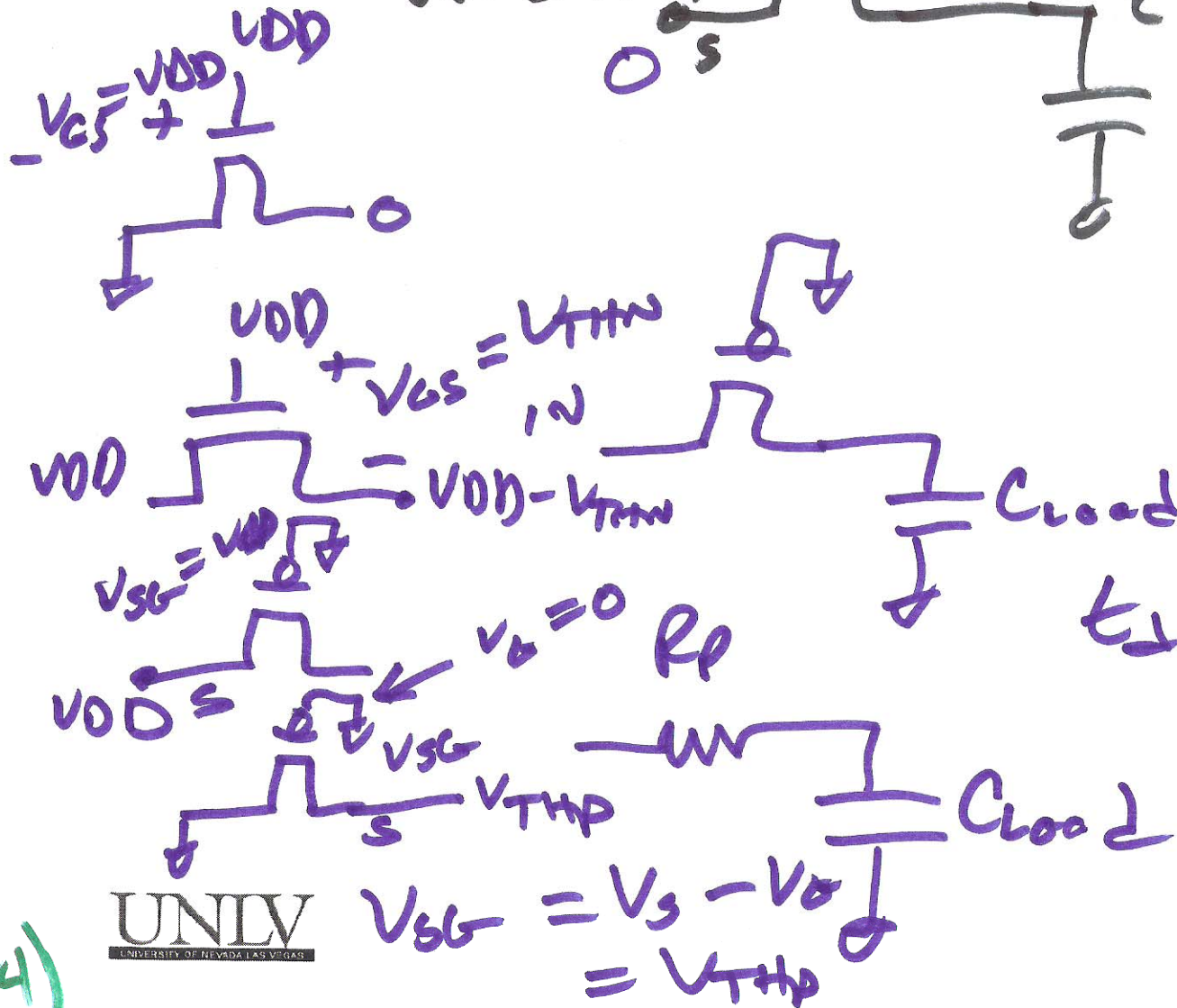
2 to 1



PMOS Pass gate

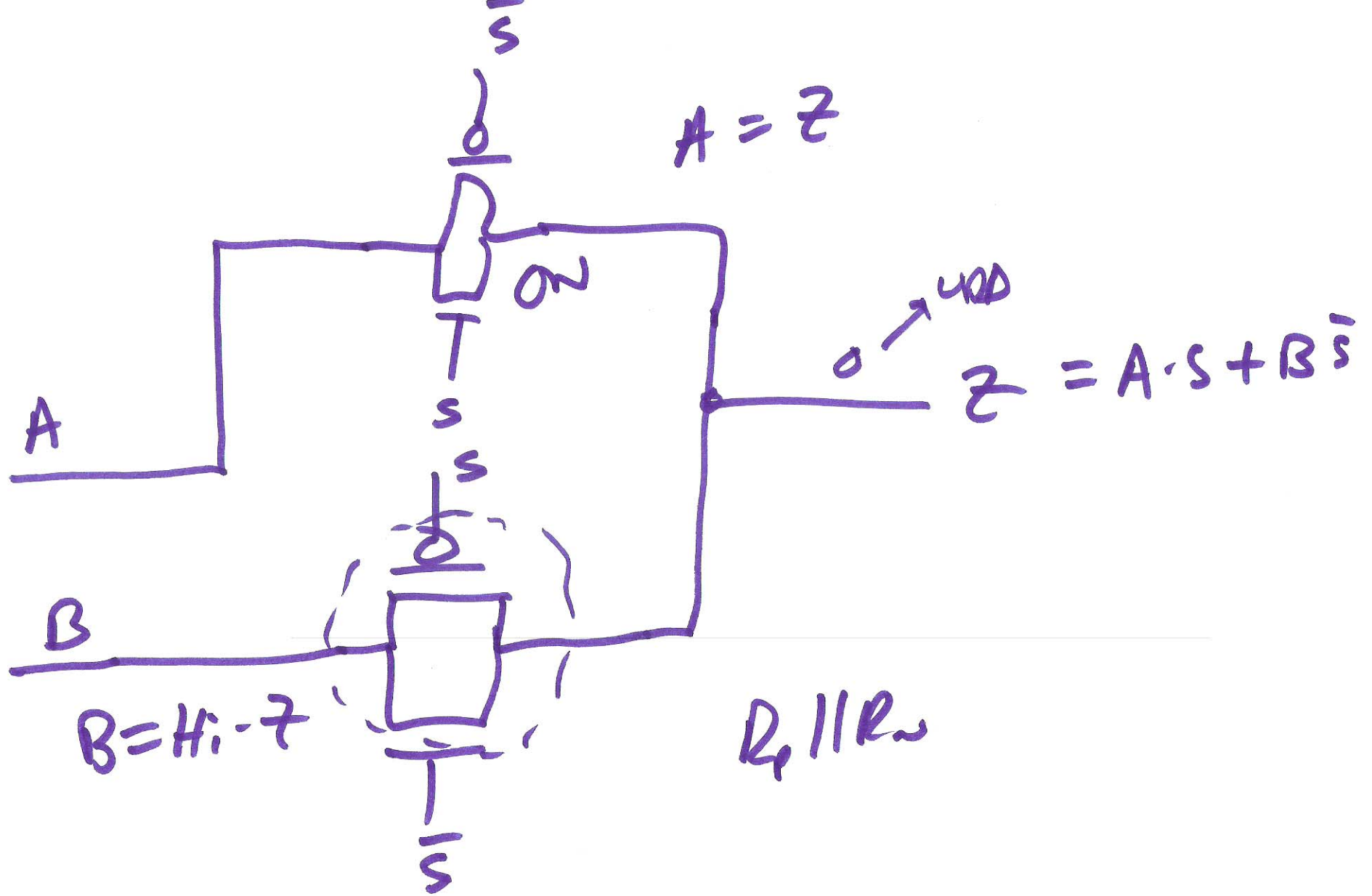


BAD PASSING a zero



$$t_d = 0.7 R_p \cdot C_{load}$$

$$= 0.7 R_p' \cdot \frac{L}{W} C_{load}$$



5)