

Essentials of MOSFETs:
Lecture 1.2: Digital Circuits
Short Problem
Mark Lundstrom
Purdue University, Fall 2018

- 1) A digital gate is operating at a frequency of 3 GHz. The power supply voltage is 1 V, and the switching capacitance is $C_{sw} = 10^{-15}$ F. Assuming that the switching activity is $\alpha = 1$, what is the dynamic power dissipation of the gate?