HW#3 Problem 4 Hint

- For corner simulation, you have to use ADE-XL with corner setup
- To launch ADE-XL from your schematic window, Launch->ADE-XL->Create New View
- In a new dialog window, click ok
- You should get an ADL-XL Editing window
- To set up a corner simulation, select “Create Corner” icon (6th icons from the left in ADE-XL Editing window)
- This will open up a new window for you to be able to set up corners
- In the corner set up window, click on “click to add” cell just below “Model Files”
- In a new window, click on “Imports from the test” and then click ok
- In the Corners setup window, click on “Add new corner” icon to add Column C1 next to Nominal
- In the row where you see gpdk045.scs and in column C1, add tt ss ff in the cell that shows <selection> so that you can run 3 corner simulations in one shot
- Before you run the simulation, you want to create an expression so that you can monitor the current through transistor M4
- For this, open up a Calculator and select “it” (it stands for transient current) and pick the source of M4 to get an expression for transient current through M4.
- In order to sample the current at 1us, you have to evaluate the signal by taking “value” function in the Function Panel section of the Calculator menu
- By selecting “value”, you will be able to enter 1us in “Interpolate At” and click ok
- Make sure to click on “Send buffer expression to ADE-XL Outputs” icon (the icon with gear and left arrow) next to Rectangular drop-down cell
- Now you should be able to get the result on actual current value through M4 at 1usec in your transient simulations