HW #6

1) **Textbook problems:** 17.1, 3, 5, 7, 13, 17, 19, 21, 25, 27. You will find the values of transistor parameters in the textbook at the beginning of the problem set.

2) Solve textbook problems 17.57 and 17.61.

3) Using Cadence, plot g_m *vs* V_{GS}, and r_o vs V_{DS} for several values of V_{GS}, for the NMOS (18µ/0.18µ) as well as the PMOS (36µ/0.18µ). Explain the behavior observed in these curves. ***Hint:*** Use the derivative operator deriv( ) in ADE calculator tool for the plots, as shown in the tutorial.

Solve on your own (Don't turn these in): 17.2, 4, 6, 8, 14, 16, 18, 20, 24, 28.