EE 475 Quiz #3

Name: *Solution*

1. For an ideal op amp, its
   a. $V_p - V_n =$ *0*
   b. $I_p = I_n =$ *0*
   c. $R_{in} =$ *∞*
   d. $R_o =$ *0*
   e. DC gain = *∞*

2. In control system modeling, you can never create your own equations. You can use algebra to manipulate/simplify/solve equations, but all of your key equations must be based on: *physical laws*

3. In modeling electric circuits, name two most important physical laws: *KCL, KVL, charge conservation, energy conservation, ...*

4. In modeling mechanical motions, name two most important physical laws: *Newton's law, Euler's law, Lagrange principle, conservation of energy, conservation of mass, Hooke's law, ...*