Homework #8

due: Thursday, April 7, 2011

- Write your name at the top of each page of your solutions.
- Clearly indicate the start of the solution for each problem.
- Properly order and staple all pages of your solution.
- Show all of your work!
- A solution that requires physical units is incorrect without them.
- Clearly identify your result (e.g. box or circle the result).
- Always write neatly! If it cannot be read, it will not be graded!
- **Always read the associated sections of the textbook before attempting the homework problems!**

1. Roth & Kinney – problem 9.1
2. Roth & Kinney – problem 9.2
3. Roth & Kinney – problem 9.4
4. Roth & Kinney – problem 9.5
5. Roth & Kinney – problem 9.8 – parts (a) and (b) as specified.
   
   (c) Using Figure 9.23 as an example, design (and draw) the ROM that can be used to implement X, Y, and Z. Be sure to clearly indicate all connections in the ROM.
7. Roth & Kinney – problem 9.21
9. Design a 16-to-1 multiplexer using five 4-to-1 multiplexers. No additional logic gates are required.