Thursday Reading Assessment: Chapters 4-5

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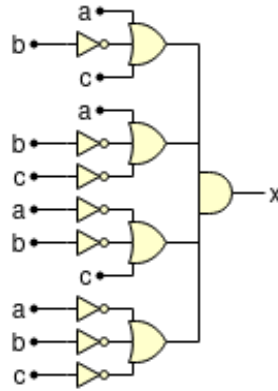

Figure 1: A logic function in need of simplification.

1 Logic Circuits, Boolean Algebra, and Karnaugh Maps

1. Consider the logic function in Fig. 1. (a) Based on Fig. 1, write an S-POS expression for the output. (b) From the S-POS expression, create the Karnaugh map and the truth table. (c) Generate the simplified Boolean expression from the Karnaugh map. *Hint: remember that cells in the top row are adjacent to those in the bottom row.*

2. Draw the simplified logic function diagram using basic gates.