Instructions: This homework is an individual effort. Answer each question. This is due on **Friday, July 2nd** by midnight to my office 4001A in the Coliseum. **Show all work to receive full credit.** Here is a link to the textbook needed to do the homework: **Discrete Mathematical Structures**.

1   2.1

1. Do the following problems from the book: 5, 7, 8, 11, and 18-20.

2   2.2

2. Do the following problems from the book: 2, 4, 9, and 11.

3   2.3

3. Do the following problems from the book: 1, 3, 7, 11, and 15.

4. When is the sum of 3 integers odd if ever?

5. When is the sum of 3 integers even if ever?

6. Prove your answers to 4 and 5.

4   2.4

7. Do the following problems from the book: 7, 10, 12, 13 ($P(A)$ means number of subsets), 15, and 21.