CISC 2210 – Introduction to Discrete Structures

Reading Assignment: Induction

- Watch this introductory video:
    - https://www.youtube.com/watch?v=bePpPFosOkE

- Watch the following examples:
    - Introduction in 15 minutes: https://www.youtube.com/watch?v=ruBnYcLzVlU
    - Sum of the first n integers in 7 minutes: https://www.youtube.com/watch?v=dMn5w4_ztSw&feature=youtu.be
    - Sum of the first n odd integers in 10 minutes: https://www.youtube.com/watch?v=twA6vZgX_U4
    - Sum of first n integers of the form $5k - 1$ in 6 minutes: https://www.youtube.com/watch?v=IFqna5F0kW8
    - $6^n + 4$ is divisible by 5 in 6 minutes: https://youtu.be/MpjkLf7lfRA

- Study one or all of the following texts:
    - Section 2.5 (pages 177–192) from the book "Discrete Mathematics An Open Introduction," by Oscar Levin (3rd Edition):
        * http://discrete.openmathbooks.org/pdfs/dmoi-tablet.pdf
    - Section 4.1 (pages 117–127) from the book "Discrete Math for Computer Science Students," by Clifford Stein, Robert L. Drysdale, and Kenneth Bogart:
    - Section 5.1 (pages 311–333) from the book Discrete Mathematics and its Applications, by Kenneth H. Rosen (7th edition):
      Section 5.2 (pages 333–344) could be helpful as well.

- Practice solving problems (with or without hints) and understanding solutions in Chapter 2 (pages 8–27) of the book "Problems on Algorithms" by I. Parberry and W. Gasarch.
    - https://ianparberry.com/books/free/poa.pdf