

# CISC 2210 – Introduction to Discrete Structures

## Reading Assignment: Number Systems, Counting, and Some Combinatorics

### Number Systems:

- Watch the following videos:

— <https://youtu.be/1srwWeMe3BE>

— <https://youtu.be/aW3qCcH6Dao>

— <https://youtu.be/Fpm-E5v6ddc>

- Study the following short tutorial:

— [https://www.tutorialspoint.com/computer\\_logical\\_organization/number\\_system\\_conversion.htm](https://www.tutorialspoint.com/computer_logical_organization/number_system_conversion.htm)

### Combinations and Permutations: Watch the following videos:

- <https://youtu.be/uNS1QvDzCVw>

- <https://www.youtube.com/watch?v=hVqq3nm0IHs>

### Pascal's Triangle: Watch the following videos:

- The mathematical secrets of Pascal's triangle

— <https://www.youtube.com/watch?v=XMriWtvPXHI>

- What You Don't Know About Pascal's Triangle

— <https://www.youtube.com/watch?v=J0I1NuxUcpQ>

- Pascal's Triangle - Numberphile

— <https://www.youtube.com/watch?v=0iMt1us-af0>

### Pascal's Triangle: Read the following articles:

- Summary of facts

— <https://www.mathsisfun.com/pascals-triangle.html>

- Wikipedia

— [https://en.wikipedia.org/wiki/Pascal%27s\\_triangle](https://en.wikipedia.org/wiki/Pascal%27s_triangle)

- Britannica

— <https://www.britannica.com/science/binomial-theorem>