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Required Resources

Textbook: *Introduction to Cryptography With Coding Theory,* Chapter 7

The reading assignment this week covers the Data Encryption Standard (DES), a block encoding/decoding symmetric-key encryption algorithm that was originally developed in the 1970s. This block-encoding cipher operates on 64-bit blocks of data and uses a 56-bit key for both encryption and decryption. A complex network of substitutions and permutations, known as a Substitution-Permutation Network (SPN), is used to perform the encryption. DES is no longer used in practice and has essentially been replaced by the Advanced Encryption Standard (AES). The AES offers much stronger security with key lengths of 128, 192, or 256 bits.

Website: Functions (https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:functions)
The Khan Academy website has a number of videos regarding different types of parent functions.

Video: Time Complexity of a Computer Program (https://www.youtube.com/watch?v=V42FBiohc6c)
This video gives a basic description of time complexity and explains its importance.
Students may experience varying amounts of time for this resource to load, depending on the speed of their internet connection. This video is 9 minutes and 41 seconds in length.

Article: What Is DES (Data Encryption Standard)? DES Algorithm and Operation (https://www.simplilearn.com/what-is-des-article)
This article discusses the block cipher Data Encryption Standard (DES).