Fourier Transform Tutorial: Lecture Notes and Practice

# 1. Lecture Notes Summary

The Fourier Transform (FT) is a mathematical technique used to analyse the frequency content of signals.   
For a time-domain signal x(t), its Fourier Transform is defined as:  
In Octave, we use **FFT** (Fast Fourier Transform) to compute a numerical approximation of the FT.   
The Fast Fourier Transform (FFT) algorithm is efficient for processing digital signals.