# Study guide for quiz 09

Quiz problems include both the lecture contents and homework problems.

1. Section 9.2: Understand the meaning of 'First-order linear equations' and study the method to solve it (multiplying a suitable factor on both sides of the equation).

2. Section 7.3: Memorize the definitions of the six hyperbolic functions. Study the graph of sinh, cosh and tanh. Derive and memorize the derivatives of the six hyperbolic functions.

3. Section 7.4: Study the meaning of 'little $o$' and 'Big $O$'. Write a few examples for both. Memorize the standard examples such as logarithm functions, polynomials and exponential functions and the relative growth rates among them (ie. which one grows fastest, which one slowest).