SCHOOL OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

G51CSA Lecture Notes #5

Reading: Main text, Chapters 9 + relevant Chapters in reference B and C

Computer Arithmetic

1. Number Systems
2. Integer representation
   - Sign-magnitude representation
   - Twos complement representation
   - Converting between different bit lengths
   - Fixed point representation
3. Integer arithmetic
   - Negation
   - Addition and subtraction
   - Multiplication
   - Division
4. Floating point representation
   - Principles
   - IEEE 754
5. Floating point arithmetic