

Practice Problems 1

1. Addition and subtraction in different number systems. Convert to the number system indicated, perform operation, and convert the result back to the decimal system
 - a. (Binary) $10+3$
 - b. (Binary) $10-3$
 - c. (Base-5) $150+7$
 - d. (Base-5) $150-7$
 - e. (Base-4) $70+20$
 - f. (Base-4) $70-20$

2. Review C++ / Object-orientation
 - a. Example class Book
 - i. constructor taking "isbn" and "title" as parameters
 - ii. make isbn private and title public
 - iii. add a public printIsbn() method
 - b. How can we instantiate a new object of type Book?
 - c. Which variable is visible from the outside, which one is hidden?

3. Given the schedule of the following students, create a conflict graph and find a feasible time-slot allocation by creating maximal independent sets.
 - a. All students are taking class D.
 - b. Tim is also taking classes E and F.
 - c. Joe is also taking classes A, B, and C.
 - d. Lisa is also taking class E.