## CS483 - Practice Problems (due November 3rd)

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Chapter 6

- (0) Read solved exercise 1 in the book
- (10) Problem 1
- (10) Problem 4
- (5) Compute the optimal solution to the following instance of the Knapsack problem and show the nW table where you computed the solution to the smaller sub-problems. Item $1(\$ 50,5 \mathrm{lbs})$, item 2 ( $\$ 60$, $10 \mathrm{lbs})$ and item $3(\$ 140,20 \mathrm{lbs})$, with the total knapsack weight $\mathrm{W}=30 \mathrm{lbs}$.
- (3) What is the solution to the fractional Knapsack problem ?
- (not for grade) 2,3, 6 are also good practice problems.

