

Homework #8, Due March 7

Chapter 7# 2, 3, 6, 9, 10; **problem 3 has a typo; it should read $A(n) = \frac{n(n+7)}{4} - 2$, not -1 .**
and the problems below: H-5, H-6.

Problem H-5. (Section 7.9)

Use radix sort to sort these numbers:

18, 12, 131, 242, 57, 163, 4, 47

Note that you must pad them with 0's first.

Problem H-6. (Section 7.8–7.9)

- (a) Describe a linear-time sorting algorithm to sort n integers from 1 to n^3 (repetitions allowed). What are the space requirements?
- (b) Does the linear-time performance of this algorithm violate the lower bound for sorting only by comparison of keys? Justify your answer.