

1. (1 pt.)

- This *quick check* is **closed book, notes, etc.**
- Use the textbook's conventions and terminology.

Read the above carefully; then write your name below:

2. (4 pts.) List the four steps in the development of a dynamic programming algorithm.

3. (2 pts.) The asymptotic running time of the *recursive* (non-memoized) version of the cut-rod algorithm is (bit-theta):

4. (2 pts.) MERGE-SORT is an example of which algorithm-design approach?

5. (2 pts.) Name the sorting algorithm, other than MERGE-SORT, that is described in detail in Chapter 2 of the textbook.

6. (4 pts.) State the theorem in Chapter 3 that relates the asymptotic bounds O , Ω , and Θ .