

**Problem 1. Dynamic Programming** Problem name: \_\_\_\_\_

(a) Define the entries of your table in words. E.g.,  $T(i)$  or  $T(i, j)$  is ....

(b) State recurrence for entries of table in terms of smaller subproblems.

(c) Write pseudocode for your algorithm to solve this problem.

(d) Analyze the running time of your algorithm.

**Problem 2. Dynamic Programming** Problem name: \_\_\_\_\_

(a) Define the entries of your table in words. E.g.,  $T(i)$  or  $T(i, j)$  is ....

(b) State recurrence for entries of table in terms of smaller subproblems.

(c) Write pseudocode for your algorithm to solve this problem.

(d) Analyze the running time of your algorithm.

Name:

ID:

Page 5 of 8

---

**Problem 3. Short answer**

**Part (a):** \_\_\_\_\_

**Part (b):** \_\_\_\_\_

**Part (c):** \_\_\_\_\_

**Part (d):** \_\_\_\_\_

**Part (e):** \_\_\_\_\_

**Part (f):** \_\_\_\_\_

**Part (g):** \_\_\_\_\_

Name: \_\_\_\_\_ ID: \_\_\_\_\_ Page 6 of 8

---

**Problem 4.** Problem name: \_\_\_\_\_

Name:

ID:

Page 7 of 8

---

**Extra Credit Problem. Dynamic Programming** Problem name: \_\_\_\_\_

(a) Define the entries of your table in words. E.g.,  $T(i)$  or  $T(i, j)$  is ....

(b) State recurrence for entries of table in terms of smaller subproblems.

(c) Write pseudocode for your algorithm to solve this problem.

(d) Analyze the running time of your algorithm.



(Blank page, you can use as a work page)

(Blank page, you can use as a work page)

(Blank page, you can use as a work page)

(Blank page, you can use as a work page)

(Blank page, you can use as a work page)

(Blank page, you can use as a work page)

(Blank page, you can use as a work page)

(Blank page, you can use as a work page)