

Name \_\_\_\_\_

Date \_\_\_\_\_

AP Statistics

Period \_\_\_\_\_

Two-Way Table HW

Use the following information for problems 1–6:

A waiter kept track of all the dinner guests at his tables during a weekend job assignment. He recorded whether each guest ordered an appetizer and whether they ordered dessert. This table summarizes the results. For example, 44 people ordered dessert but did not order an appetizer. Use the information in the table to answer the following questions.

	<i>Ordered an appetizer</i>	<i>Did not order an appetizer</i>
<i>Ordered a dessert</i>	30	44
<i>Did not order a dessert</i>	12	24

- What percentage of the people served by the waiter ordered dessert?
  - 38%
  - 42%
  - 49%
  - 67%
  - 74%
- What percentage of the people served by the waiter ordered an appetizer?
  - 38%
  - 42%
  - 49%
  - 67%
  - 74%
- What percentage of the people served by the waiter ordered either a dessert or an appetizer, but not both?
  - 44%
  - 49%
  - 51%
  - 56%
  - 64%
- Which of the following is the second most likely to occur?
  - Order dessert, but no appetizer
  - Order an appetizer, but no dessert
  - Order both an appetizer and dessert
  - Order an appetizer
  - Does not order dessert

5. What percentage of people served by the waiter who ordered dessert also ordered an appetizer?
- A. 27%
  - B. 38%
  - C. 41%
  - D. 68%
  - E. 78%
6. What percentage of people served by the waiter who didn't order an appetizer ordered dessert?
- A. 40%
  - B. 55%
  - C. 60%
  - D. 65%
  - E. 92%

### Free Response

- 1) Information was collected at a restaurant whose dinners include soup or salad. Although some diners ask for both soup and salad, and some diners have neither, these cases were excluded from the data. The number of people requesting soup or salad along with their gender was tabulated and is presented in the following two-way table:

	<i>Male</i>	<i>Female</i>
<b>Soup</b>	120	60
<b>Salad</b>	220	160

Examine the marginal as well as conditional distributions. Compare and contrast the results.