BRONX COMMUNITY COLLEGE
of The City University of New York
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Math 23 (nea) — Second Exam
June 19, 2006 — 45 minutes

Real Name: ______________________________

Secret Name: ______________________________

1. An employer wants to determine if there is a relationship between the number of years an employer has been employed and the number of employers that voluntarily resign. The following data was collected

Years of employment x	Resignations y			
5	7			
6	4			
3	7			
7	1			
8	2			
2	8			

   (a) (250 points) Determine the regression line

   (b) (50 points) Use the equation in the previous part to predict how many employers that have been employed for 4 years will voluntarily resign.

2. (200 points) Two fair dice are rolled. Find the probability that we get a sum of 8.

3. (200 points) A basketball player makes 60% of the free throws he shoots. If he tries 10 free throws what is the probability that he will make five or more throws?

4. The weights (in pounds) of metal discarded in one week by households are normally distributed with a mean of 2.22 lb. and a standard deviation of 1.09 lb.

   (a) (150 points) If one household is randomly selected, find the probability that it discards more than 2.00 lb. of metal in a week.

   (b) (150 points) Find a weight x with the property that the weight of metal discarded by 70% of the houses is above x.

Question:	1	2	3	4	Total
Points:	300	200	200	300	1000
Score:					