

Math 110
Quiz 3 Sample
October 14, 2008

Be sure to show the calculations that lead to your answers.

1. At a large university, a group of students took standardized placement exams in both French and Spanish that were scored out of 100 points. The average on each test was 60 and the SD on each test was 10. The correlation coefficient for the data was $r = .7$.
 - (a) For all the people who scored 75 on the French test, estimate the average of their Spanish test scores?
 - (b) For all the people who scored 75 on the French test, estimate the SD of their Spanish test scores?
 - (c) Of all the people who scored 75 on the French test, estimate what percentage scored above a 75 on the Spanish test. (*Hint:* You will need to use your answers to (a) and (b).)

2. A die is rolled three times. In each part, show the expression for the chance that you get before simplifying.
- (a) What is the chance that on all three rolls, the number on the die is a three or a six?
 - (b) What is the chance that on at least one of the rolls, the number on the die is an ace, a two, a four, or a five?
 - (c) What is the chance that a three or a six does not appear on any of the rolls?