

# Math 110

Quiz 3 Sample

March 8, 2010

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

1. Fill in the blank:

(a) If two events are mutually exclusive, the chance that one or the other will happen is the \_\_\_\_\_ of their individual chances.

(b) If two events are independent, that chance that both will happen is the \_\_\_\_\_ of their individual chances.

2. A fair coin is flipped 7 times. What are the chances that it will land heads up 4 times?

3. On consecutive hour exams in a chemistry course, the means and SDs were  $\mu_1 = 70$  and  $SD_1 = 10$  for the first test and  $\mu_2 = 80$  and  $SD_2 = 15$  for the second test. The correlation coefficient for the data was  $r = .5$ . What are the chances that a student who scored 75 on the first test will score 75 or above on the second test?