

Math 110

Quiz 4 Sample

March 22, 2010

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

1. Betting on a pair of adjacent numbers in roulette pays 17 to 1 (a winning bet of \$10 wins \$170, otherwise it loses the \$10). Refer to the accompanying roulette table as needed.
 - (a) Construct a box model for this bet. (How many tickets are in the box and what numbers are on the tickets?)
 - (b) If the bet is made 20 times, what is the EV for the total amount won/lost?
 - (c) What is the SE for this EV?
 - (d) What are the chances that a person playing this bet 20 times will wind up with winnings of more than a \$100?

