Math 206 - Quiz 4

February 24, 2010

Name _____

Score _____

Show each step to receive full credit. Supply explanations when necessary.

1. (1 point) Suppose $P(A) = 0.65$, $P(B) = 0.40$ and $P(A \cap B) = 0.26$. Determine $P(A|B)$ and $P(B|A)$.

2. (2 points) Bucket #1 contains three \$5 bills and one \$10 bill. Bucket #2 contains four \$1 bills and one \$100 bill. A bill is drawn at random from bucket #1, placed into bucket #2, and then a bill is drawn from bucket #2.

   (a) How much, on average, would you expect to win from this game?

   (b) What are the odds against winning more \$8?

3. (2 points) After taking four 50-point tests, Sally's class average was 86.5%. What must she get on her 100-point final exam in order to end up with a class average of 90%?