Math 115 - Quiz 8

Name key

October 30, 2014

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) A card is drawn at random from a standard deck of playing cards. Let A be the event of drawing a face card, and let B be the event of drawing a queen. Compute $P(A|B)$ and $P(B|A)$. Be sure to indicate which is which.

$P(A|B)$ = prob of face card given queen = $\frac{4}{4} = 1 = 100\%$

$P(B|A)$ = prob of queen given face card = $\frac{4}{12} = \frac{1}{3} = 33\frac{1}{3}\%$

2. (3 points) A letter is selected at random from the first box and placed into the second box. Then a letter is selected at random from the second box.

x	x	x	y	y

x	x	x	x	y

Sketch the complete tree diagram for this experiment. Include the probabilities of each path.