

# Math 115 - Quiz 8

October 30, 2014

Name \_\_\_\_\_

Score \_\_\_\_\_

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

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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.

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.

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