## Name \_\_\_\_

October 20, 2016

Math 153 - Quiz 7

Score \_\_\_\_\_

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

1. (6 points) A number of adults were asked about a stand-up comedy performance they attended.

	Thought show was very funny	Did not think show was very funny
Older than 30 years old	32	72
30 years old or younger	56	126

One of the survey participants is selected at random.

- (a) What is the probability that the person is older than 30 or thought the show was very funny?
- (b) What is the probability that the person thought the show was very funny given that the person is older than 30?
- (c) Are the show attendees attitudes about the "funniness" of the show independent of age?
- 2. (4 points) Suppose A and B are events such that P(A) = 0.28, P(B) = 0.36, and  $P(A \cup B) = 0.50$ . Find P(B|A). Are A and B independent?