

Math 153 - Quiz 6

October 5, 2017

Name _____

Score _____

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

1. (5 points) A teacher collected the following data on her students.

	Completed assignments	Did not complete assignments
Passed class	217	59
Failed class	18	67

One of those students is selected at random.

- (a) What is the probability that the student completed assignments?
- (b) What is the probability that the student passed the class?
- (c) What is the probability that the student completed assignments or passed the class?
- (d) What is the probability that the student completed assignments and passed the class?
- (e) Explain why the answer in part (c) is not the sum of the answers in parts (a) and (b).

2. (5 points) A letter is selected at random from the first box and placed into the second box. Then a letter is selected from the second box.

A A A B C C

B B B C

- (a) Sketch the probability tree associated with this two-stage experiment and find the probability of each outcome (along each path).

- (b) What is the probability of selecting the letter C from the second box?

- (c) What are the **odds against** selecting a C from the second box?