

Math 153 - Quiz 6

March 23, 2017

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary. YOU MUST WORK INDIVIDUALLY.

1. (5 points) Consider the following probability distribution

x	0	1	2	3	4	5	6	7
$P(x)$	0.012	0.026	0.020	0.001	0.472	0.002	0.324	0.143

- (a) State the two conditions that verify that this table indeed defines a probability distribution.
- (b) Compute $P(x \geq 4)$.
- (c) Determine all unusually small values of x .
- (d) Determine any unusually large values of x .
2. (5 points) A jar contains 5 pennies, 3 nickels, 7 dimes, and 1 quarter. A coin is selected at random. Let x represent the value of the coin in cents. Determine the probability distribution for x and compute the expected value.