## Math 115 - Quiz 9

November 6, 2014

Name $\qquad$
Score $\qquad$

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

1. (5 points) Consider the table shown below.

| $x$ | $P(x)$ |
| :---: | :---: |
| 3 | 0.003 |
| 4 | 0.012 |
| 5 | 0.037 |
| 6 | 0.325 |
| 7 | 0.028 |
| 8 | 0.462 |
| 9 | 0.084 |
| 10 | 0.049 |

(a) Does the table describe a probability distribution? Explain.
(b) Find mean value of $x$ (i.e. the expected value).
(c) Find the standard deviation.
(d) Use the standard deviation to determine if there are any unusually large values of $x$.
(e) Use probabilities to determine if there are any unusually small values of $x$.

