Quiz 6A

Name:

UAlbany Email:

Closed book/notes. Scientific calculators only. Correct answers and all work must be shown to receive full credit.

1. Suppose x has a uniform distribution on $(1, 9)$.

   (a) (2 pts.) Find the height of the density curve. *Hint:* What is the density function?

   (b) (3 pts.) Compute $P(x \leq 7)$.

2. (5 pts.) Suppose x is a discrete random variable with the probability distribution shown below.

x	1	2	3	4
$p(x)$	0.15	0.20	0.25	0.40

   The mean is found to be $E(x) = \mu = 2.9$. Compute the standard deviation of x. Round your answer to *three* decimal places.

Formulas You May Need:

$$\sigma = \sqrt{\sum (x-\mu)^2 p(x)} = \sqrt{\sum_x \left[(x-\mu)^2 p(x) \right]} \quad (1)$$

Grade: /10