

Name: \_\_\_\_\_

**Statistics Quiz: Discrete Random Variables**

1. Explain how dealing with discrete random variables is **similar and different** from dealing with normal distributions.

2. Is the following a valid probability distribution? **Why?**

X	P(X)
23	0.42
24	0.11
25	0.24
26	0.03
27	0.17

3. An agency collected data on the number of computer the average family in the United States owns.
  - a. Construct a probability distribution table for the numbers of computers owned by the families. Draw a bar graph to represent the probability distribution.
  - b. Let  $x$  be the number of computers owned by the family randomly selected in the United States. Find the following:
    - i.  $P(x = 0)$
    - ii.  $P(x > 2)$
    - iii.  $P(x < 5)$
    - iv.  $P(1 < x < 4)$

Number of computers	0	1	2	3	4	5
Number of families	345	456	789	652	412	216