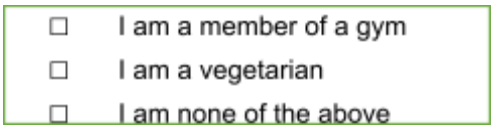
Math 107 Section 2.2

Name: _____

Venn Diagrams

1. 700 men filled out the following survey:



The results were as follows: 349 men checked the gym box, 101 checked the vegetarian box, and 312 checked the last box.

a) Draw a Venn Diagram illustrating the results of the survey.

b) What percent of these men were both members of a gym and vegetarians? Round percent to 2 decimal places.

2. In a recent health insurance survey, employees at a large corporation were asked, "Have you been a patient in a hospital during the past year, and if so, for what reason?"
The following results were obtained: 493 employees had an injury, 777 had an illness, 1,258 had tests, 237 had an injury and an illness and tests, 703 had an illness and tests, 509 had tests and no injury or illness, 959 had an injury or illness, and 1,542 had not been a patient.

a) Draw a Venn Diagram to organize the data.

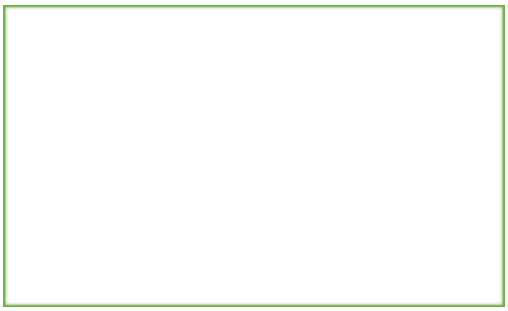
b) How many people were surveyed?

c) What percent of the employees had been patients in a hospital? Round percent to 2 decimal places.

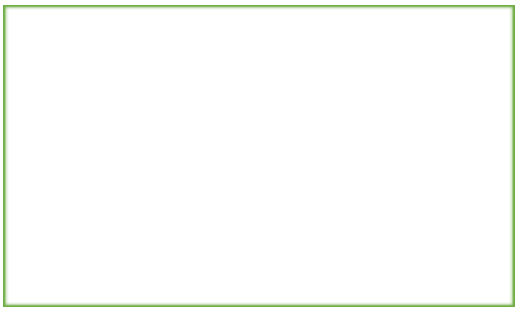
d) What percent of the employees had tests in a hospital? Round percent to 2 decimal places.

3. Draw a Venn Diagram with two regions (sets) A and B.

a) Shade $(A \cup B)'$



b) Shade $A' \cap B'$



4. Given the sets: $U = \{s, o, u, n, d, t, r, a, c, k\}$, $A = \{r, u, n, s\}$, $B = \{t, r, u, c, k\}$

a) Draw a Venn Diagram containing sets A and B.

List the following sets:

b) $\left(A \cup B'\right)' =$

c) $B' \cap A' =$

d) $(B' \cap A)' =$