

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

SS#: \_\_\_\_\_

## Test 1

**Instructions:** Answer all seven problems, each one on a separate answer sheet. Put the number of the problem you are doing at the top of the answer sheet.

All problems are worth the same amount.

1. A group of students are polled regarding the number of tacos they consumed last month. Their responses were: 4, 15, 3, 0, 6, 9, 5.
  - (a) Find the sample mean.
  - (b) Find the sample variance.
  - (c) Find the sample standard deviation.

2. Martin is playing *Dungeons and Dragons* with some of his friends. He is using two dice, both of which are fair, but one has 7 sides and the other has 4. He must roll a number greater than 9 to defeat a troll. What is the probability that he succeeds?

*Bonus:* What is the probability that Martin has no life?

3. Fill in all 8 regions in the Venn diagram, given the following information:

$$P(ABC) = .1$$

$$P(BC) = .2$$

$$P(\overline{A}C) = .3$$

$$P(AC) = .15$$

$$P(AB) = .2$$

$$P(A \cup C) = .6$$

$$P(B) = .6$$

