

EE 381 Homework 1 Part 1

Name, I.D. #, and Date: _____

Instructions: Attempt each exercise and show your work. You can attach pages to your submission. Submit this part of homework 1 with the additional parts of homework 1 on Wednesday February 5. You may want to make copies of your work.

For the population data set $\{9, 2, 1, 8, 8, 8, 1, 9\}$ determine the three measures of central tendency: mean, median, and mode. Additionally determine the three measures of variation: range, variance, and standard deviation.

The probability an American home will have a pet cat is 30% and the probability an American home will have a pet dog is 67%. Further, 20% of American homes own both a cat and dog. What is the probability a random American home has at least one?

There are two urns 'A' and 'B' with chips in them. Urn 'A' has 4 red and 3 green chips whereas urn 'B' has 2 red and 2 blue chips. A fair die is rolled. If either a 1 or a 6 is rolled urn 'A' is chosen otherwise urn 'B' is chosen. A chip is drawn from the chosen urn, what is the probability it is red?