

(d) The mileages are known to be normally distributed. If the average mileage with metallic pads are 19000 miles with a standard deviation of 5000 miles, what proportion of metallic breaks would have to be serviced between 12000 and 23000 miles

(e) What is the mileage at which 5% of all metallic pads would have to be replaced?

2. Grocery bills for fifteen shoppers were recorded to the nearest dollar. Determine the median of the bills and determine whether there were any outliers in this collection.

66, 78, 77, 60, 91, 67, 79, 67, 76, 84, 72, 68, 64, 66, 123.

3. The Box-Whisker plots in Figure 2 (attached) give two side by side plots of the fat content as a % of the weight for two types of fried chicken nuggets.

(a) Indicate one similarity and one discrepancy between the two brands.

(b) Which brand would be healthy? Why?

(c) The manufacturer of brand A claims that the chances of their nuggets having a fat content exceeding 7% is less than 10%. Would you agree? Why?

(d) The brand A nuggets are heavier than brand B nuggets. Would this additional information change your opinion above? Why?

4. The scores in an aptitude test are normally distributed with a mean 100 and a standard deviation 10.

(a) Find the probability that a student scores more than 123

(b) Find the probability that a student scores between 85 and 110.

(c) Find the number c such that 95% of the students would have their scores below c .