## Box Plots Test

1) Below are the prices of iPhones at two competing Electronic stores:

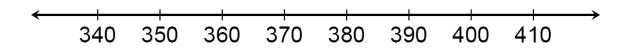
<u>Phones and More</u> 345, 350, 356, 360, 375, 405 <u>Electronic Central</u> 343.370.386.392.395.402

a) Identify the 5 main statistics of each set of data. (Parts needed for part b)

Phones and More

Electronic Central

b) Draw a double box plot of the above data on the scale below:



c) What is the median price for an iPhone at Phones and More?

What is the lowest price you could pay for an iPhone at Electronic Central?

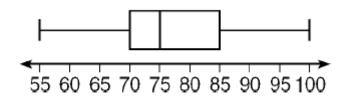
What is the most expensive phone at Phones and More?

What is the range of prices for phones at Electronic Central

Which store would you rather buy an iPhone from? Why?

What measures of central tendency do box plots help you see?

2) The accompanying box plot represents the scores earned on a math test.

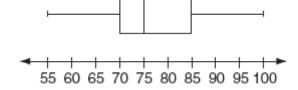


- 1) What is the median score?
  - (a) 75
- (b) 70
- (c) 85
- (d)77
- 2) What score represents the first quartile?
  - (a) 55
- (b) 70
- (c) 100
- (d) 75
- 3) What statement is *not* true about the box plot shown?
  - (a) 75 represents the mean score
- (c) 85 represents the 3rd quartile
- (b) 100 represents the maximum score
- (d) 55 represents the minimum score
- 4) A score of an 85 on the box plot shown refers to:
  - (a) the third quartile

(c) the maximum score

(b) the median

- (d) the mean
- 3) What is the median price for a skateboard at Middletown Skateboards?
  - (a) 70
- (c) 77
- (b) 75
- (d) 85

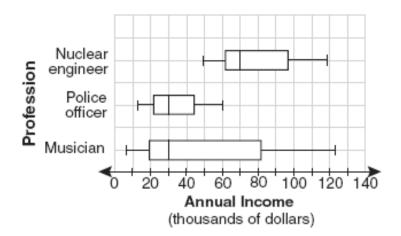


- 4) What is the value of the upper quartile (Q3) shown on the box plot below?
  - (a) 6
- (b) 10
- (c) 8.5
- (d) 12
- 5) A movie theater recorded the number of tickets sold daily for a popular movie during the month of June. The box plot shown below represents the data for the number of tickets sold, in hundreds.

Which conclusion can be made using this plot?

- (a) The second quartile is 600.
- (b) The mean of the attendance is 400.
- (c) The range of the attendance is 300 to 600.
- (d) Twenty-five percent of the attendance is between 300 and 400.

6) The accompanying box plots can be used to compare the annual incomes of three professions.



Based on the box plots above, which statement is true?

- (a) The median income for nuclear engineers is greater than the income of all musicians.
- (b) The median income for police officers and musicians is the same.
- (c) All nuclear engineers earn more than all police officers.
- (d) A musician will eventually earn more than a police officer.

7. BONUS: Given the provided information, write a paragraph describing the steps you would take to make a box plot for the information. Be sure to be as detailed as possible and remember the characteristics of a good expository writing.

Haley polled her friends about the number of text messages they send in a month. The number of text messages from her and her 7 friends is: 1025, 995, 900, 750, 1250, 1140, 975, 845