1) Below are the prices of snowboards at two competing snowboard stores:

Middletown Snowboards
345, 350, 356, 360, 375, 405
358

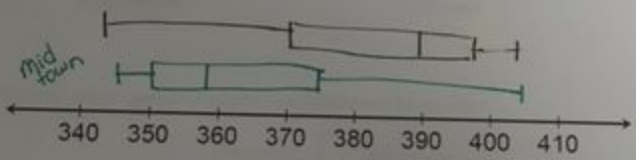
Snowboard Central
343, 370, 386, 392, 395, 402
389

a) Identify the 5 main statistics of each set of data.

Middletown Snowboards
min: 345
Q_1: 350
med: 358
Q_2: 375
max: 405

Snowboard Central
min 343
Q_1: 370
med: 389
Q_2: 395
max: 402

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



c) What is the median price for a snowboard at Middletown Snowboards?

$358

What is the lowest price you could pay for a snowboard at Snowboard Central?

$343

What is the most expensive board at Middletown Snowboards?

$405

What is the range of prices for snowboards at Snowboard Central?

402 − 343 = 59

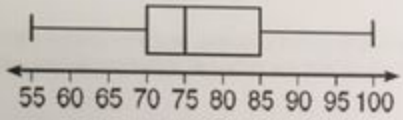
Which price represents the 75th percentile for Middletown Snowboards?

$375

Which store would you rather buy a snowboard from? Why?

Even though SC has a lower min, I would pick MS because the middle 50% is cheaper than SC's middle 50%

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



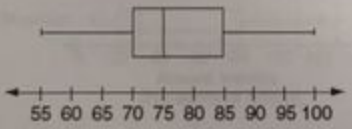
a) What is the median score?
(1) 75 (2) 70 (3) 85 (4) 77

b) What score represents the first quartile?
(1) 55 (2) 70 (3) 100 (4) 75

c) What statement is *not* true about the box and whisker plot shown?
(1) 75 represents the mean score
(2) 100 represents the maximum score
(3) 85 represents the 3rd quartile
(4) 55 represents the minimum score

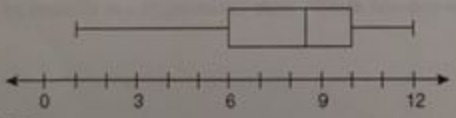
d) A score of an 85 on the box-and-whisker plot shown refers to:
(1) the third quartile
(2) the median
(3) the maximum score
(4) the mean

3) What is the median price for a snowboard at Middletown Snowboards?



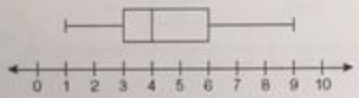
What is the median score?
(1) 70
(2) 75
(3) 77
(4) 85

4) What is the value of the third quartile shown on the box-and-whisker plot below?



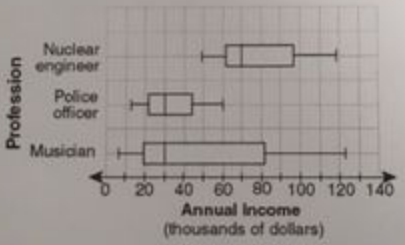
(1) 6
(2) 8.5
(3) 10
(4) 12

5) A movie theater recorded the number of tickets sold daily for a popular movie during the month of June. The box-and-whisker plot shown below represents the data for the number of tickets sold, in hundreds.



Which conclusion can be made using this plot?
(1) The second quartile is 600.
(2) The mean of the attendance is 400.
(3) The range of the attendance is 300 to 600.
(4) Twenty-five percent of the attendance is between 300 and 400.

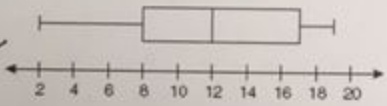
6) The accompanying box-and-whisker plots can be used to compare the annual incomes of three professions.



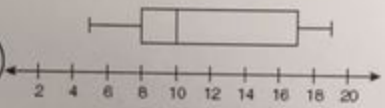
Based on the box-and-whisker plots, which statement is true?
(1) The median income for nuclear engineers is greater than the income of all musicians.
(2) The median income for police officers and musicians is the same.
(3) All nuclear engineers earn more than all police officers.
(4) A musician will eventually earn more than a police officer.

7) The data set 5, 6, 7, 8, 9, 9, 9, 10, 12, 14, 17, 17, 18, 19, 19 represents the number of hours spent on the Internet in a week by students in a mathematics class. Which box-and-whisker plot represents the data?

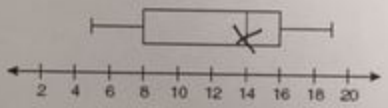
(1)


2 4 6 8 10 12 14 16 18 20

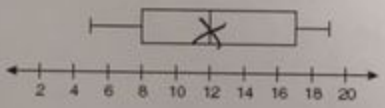
(2)


2 4 6 8 10 12 14 16 18 20

(3)


2 4 6 8 10 12 14 16 18 20

(4)


2 4 6 8 10 12 14 16 18 20