

Name Key

### Interpreting Box-and-Whisker Plots

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

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

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

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

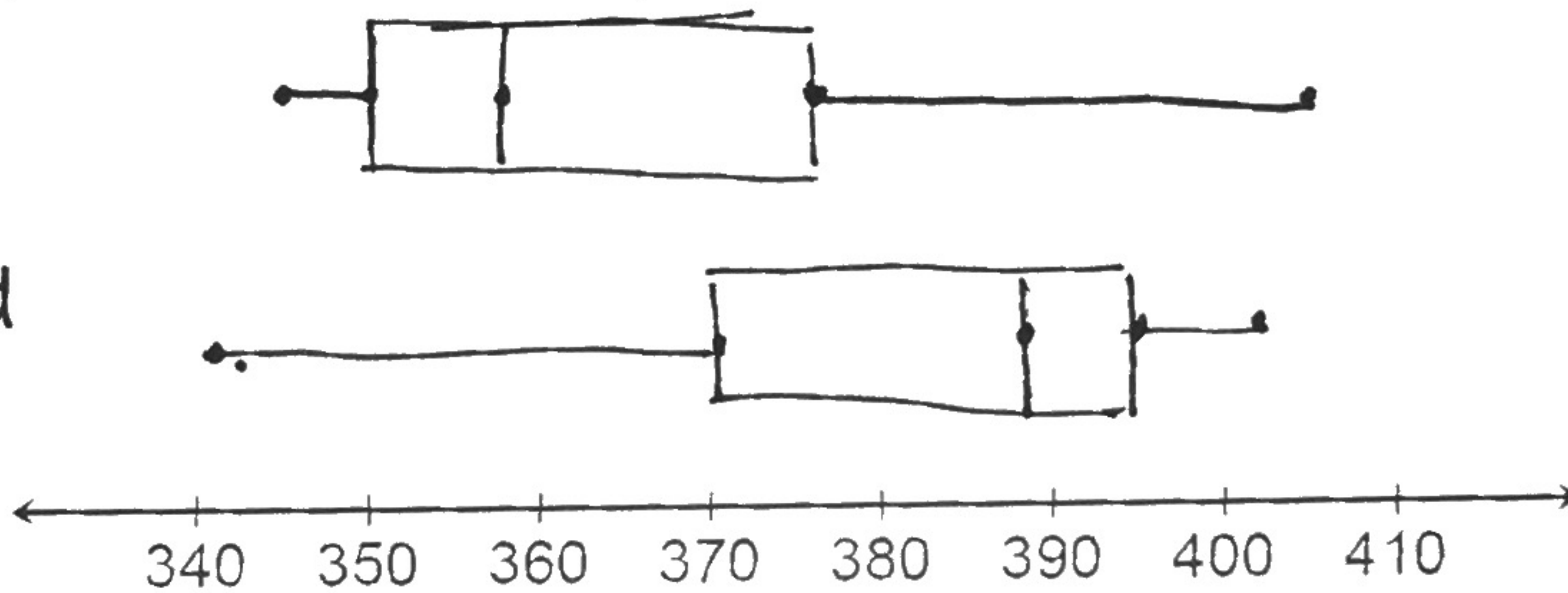
Middletown Snowboards  
min = 345      Q3 = 375  
Q1 = 350  
med = 358      max = 405

Snowboard Central  
min = 343      Q3 = 395  
Q1 = 370  
med = 389      max = 402

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

middletown

snowboard central



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 75<sup>th</sup> percentile for Middletown Snowboards?

375

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

middletown because more of the data is below 380.

What is the IQR for Middletown Snowboards? What is the IQR for Snowboard Central? How do they compare?

IQR = 25

IQR = 25

They are the same.

NO outliers

Middletown  
 $Q1 - 1.5(IQR) = 350 - 1.5(25) = 350 - 37.5 = 312.5$

$$Q3 + 1.5(IQR) = 375 + 37.5 = 412.5$$

snowboard central

$$Q1 - 1.5(IQR) = 370 - 37.5 = 332.5$$

$$Q3 + 1.5(IQR) = 395 + 37.5 = 432.5$$

NO outliers