Name: Key

Comparing Box-and-Whisker Plots: Notes

1. Make a box plot for each of the math students' scores. Place Casey's scores above the number line and Nicky's scores below the number line. Then, use them to answer the questions that follow.

Math Grades for Two Top Math Students on their Last Ten Math Tests										
Casey:	100	~~96~~	100	~~98~~	~~97~~	~~92~~	~~99~~	~~90~~	~~96~~	~~94~~
Nicky:	~~77~~	~~95~~	~~85~~	100	98	100	98	~~88~~	~~92~~	~~95~~

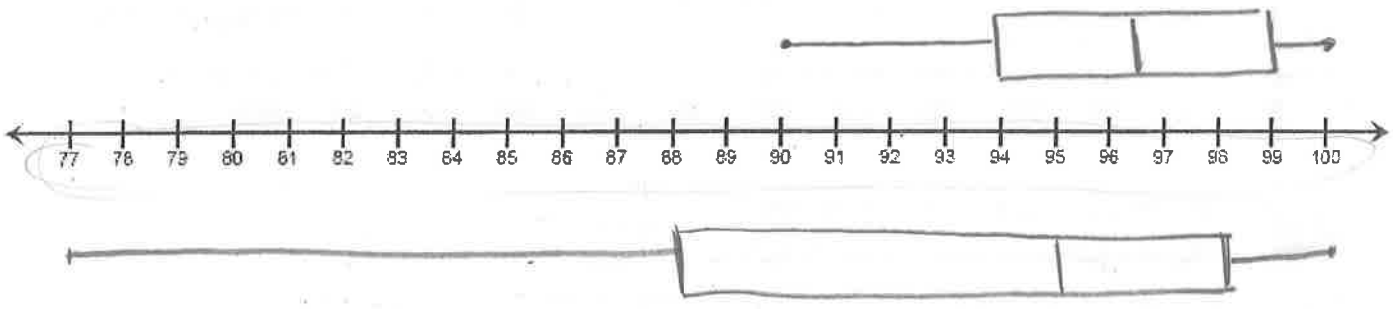
Ordered Data and Work:

- Casey: 90 92 94 96 96 97 98 99 100 100
- Nicky: 77 85 88 92 95 95 98 98 100 100

Complete the table to make the box-and-whisker plots.

	Lower Extreme	Lower Quartile	Median	Upper Quartile	Upper Extreme
Casey's Scores:	90	94	96.5	99	100
Nicky's Scores:	77	88	95	98	100

Casey's Scores

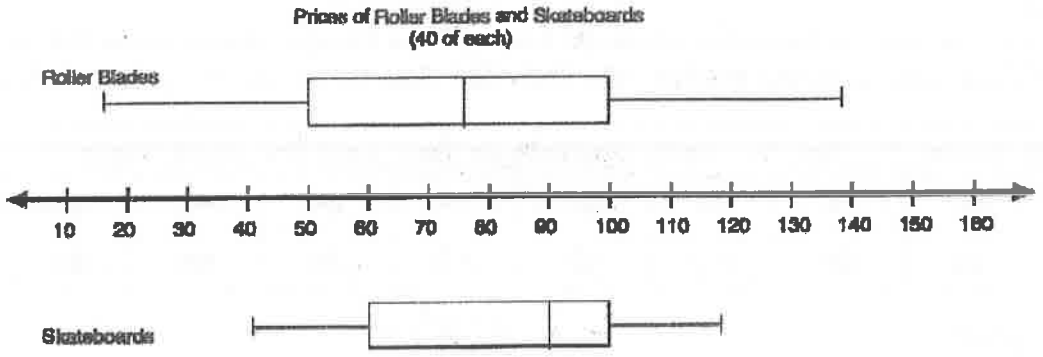


Nicky's Scores

3. What is the inter-quartile range for Casey's scores? 5 pts.
4. What is the range for Casey's scores? 10 pts.
5. What is the inter-quartile range for Nicky's scores? 10 pts
6. What is the range for Nicky's scores? 23 pts.

Casey's scores are higher than Nicky's

3. Use the double box-and-whisker plots to answer the following questions.



a. How does the median skateboard cost compare to the median roller blade cost?
Skateboards cost $15 more than Rollerblades.

b. What percent of roller blades cost between $50 and $100? 50%

c. How many roller blades cost between $50 and $100? 20

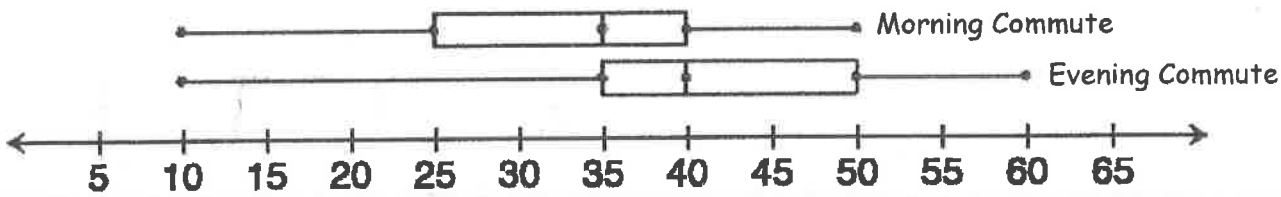
d. What percent of skateboards cost $60 or more? 75%

e. How many skateboards cost $60 or more? 30

f. Read Carefully: How many of the skateboards cost $100 or more? 10

4. Target took a survey of all its employees to see how much time they spend commuting or driving to work in the morning and from work in the evening. The results are as follows:

Target's Employee Commute Times (in minutes)



a. What is the shortest *evening* commute time? 10

b. What is the longest *morning* commute time? 50

c. About what percent of the *evening* commuting times fell between 10 and 35 minutes? 25%

d. About what percent of the *morning* commuting times fell between 10 and 35 minutes? 50

e. Dan's *evening* commute time is 52 minutes. He thinks this is longer than most people's *evening* commute times. Is he right? Explain. yes. 75% have a shorter commute than him.

f. The following data set matches one of the box-and-whisker plots above - morning commute or evening commute: 10, 10, 25, 25, 35, 35, 35, 35, 40, 40, 40, 40, 40, 40, 50. Which is it? Why?
morning - Vance