

Box and Whisker Plots

Goals ■ Read and create box-and-whisker plots.

Vocab:

Minimum: *lowest value*

Maximum: *highest value*

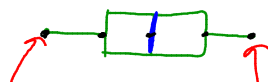
Median: middle #

Q2
Lower Quartile: *the middle of the lower half of the data*

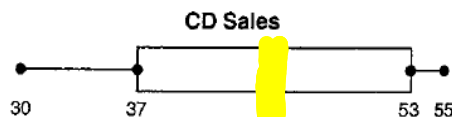
Q3
Upper Quartile: *middle of the upper half of the data*

Interquartile Range:

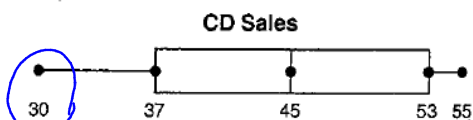
$Q3 - Q1$
Lowest $Q1$ $Q2$ $Q3$ *Highest Value*



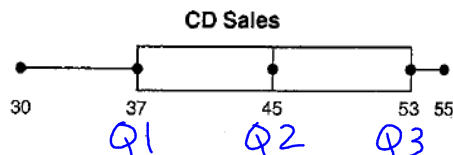
Note taking packet Page 11.



1. What is the median of CDs sold? 45



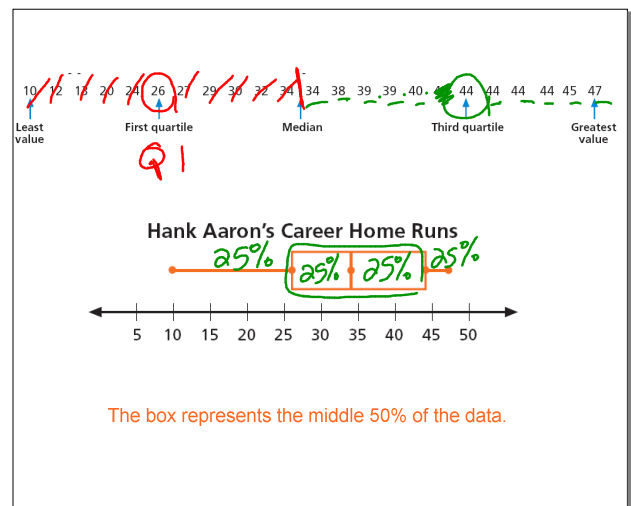
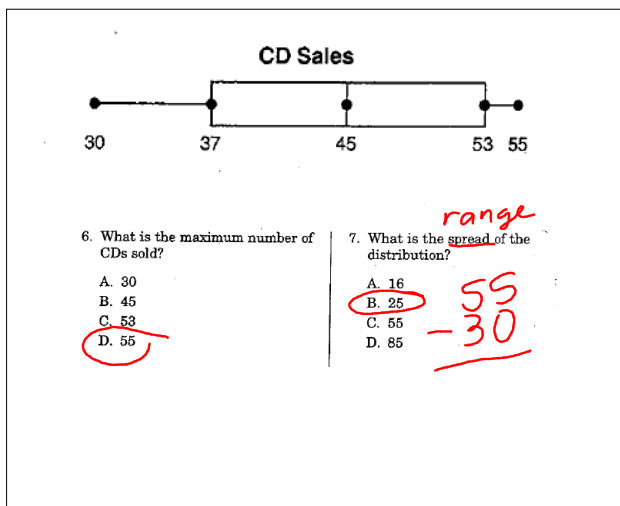
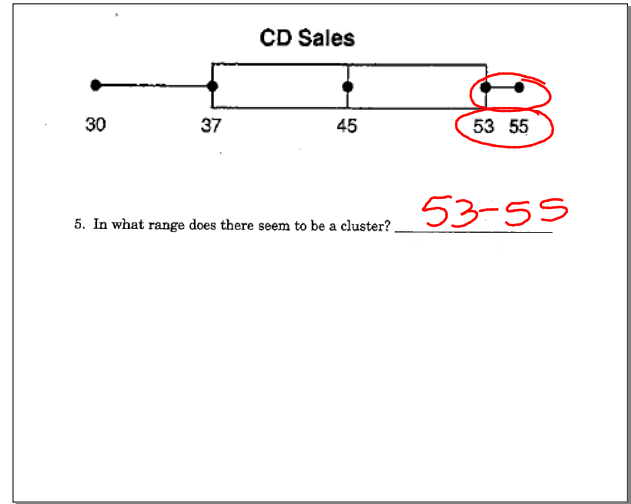
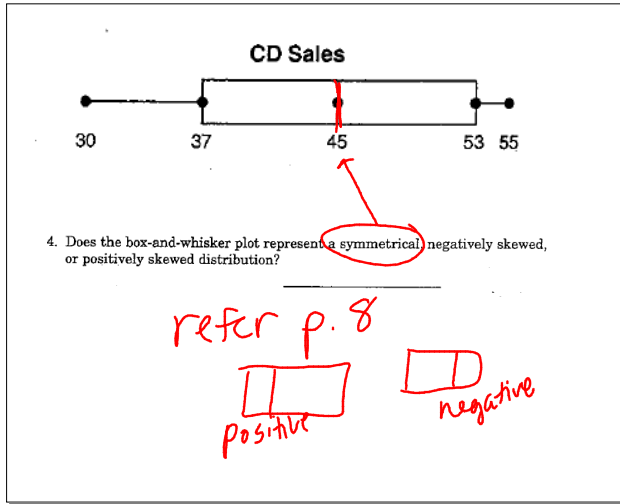
2. What is the minimum number of CDs sold? 30



3. What are the lower and upper quartiles of the distribution?
lower: 37 upper: 53

Range
$$\begin{array}{r} 55 \\ -30 \\ \hline 25 \end{array}$$
 / *interquartile range?*
$$Q3 - Q1$$

$$53 - 37 = 16$$



Use the box-and-whisker plot to answer the following questions.

Career Home Runs

a. Who hit the most home runs in a single season? Who hit the least?

Use the box-and-whisker plot to answer the following questions.

Career Home Runs

b. Who has the highest median?

Use the box-and-whisker plot to answer the following questions.

Career Home Runs

c. Who hit in the middle 50% most frequently? What does this mean?
 Find the interquartile range to help answer this question.
 HA $(44 - 26) = 18$
 BR $(47 - 11) = 36$

Use the box-and-whisker plot to answer the following questions.

Career Home Runs

d. Which player had more years with a higher number of home runs than his personal average?
 Look at the difference in the highest value and the third quartile.

FITNESS Two gyms gather data about the number of customers that visit each location. For each gym's data, find the following.

Daily Gym Customers

Diamond Gym
Muscles Gym

4. median 5. first quartile 6. third quartile 7. range
 8. least number of customers 9. greatest number of customers
 10. For each gym, find the range of the middle 50%.

Refer to the box-and-whisker plot.

Treadmill Prices

11. What are the highest and lowest prices? 12. What is the range of the prices?

Refer to the box-and-whisker plot.

Treadmill Prices

13. What is the median price? 14. What is the range of the middle 50%?