6th Grade
June 1, 2021

Today we will:

-Take notes and do examples on box and whisker plots

-Begin HW

HOMEWORK:

Pg 883 WS

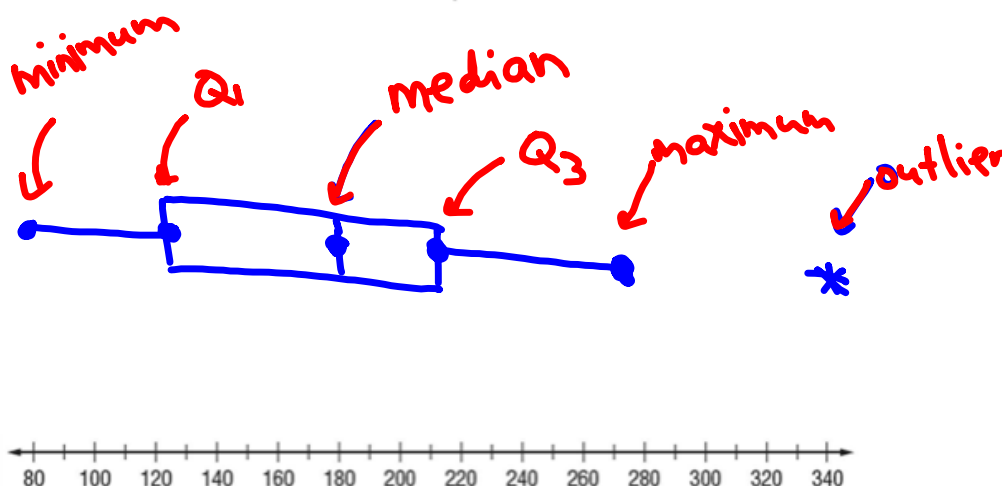12-3 Video Notes.   Complete and put in binder.   Name_____

12-3

BOX PLOTS

MATH   (CCSS)   Statistics and Probability

Vocab
Vocabulary

• box plot

minimum   Q1   median   Q3   maximum   outlier

80 100 120 140 160 180 200 220 240 260 280 300 320 340
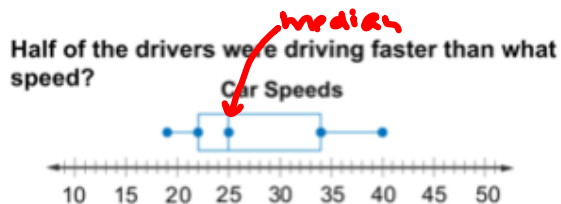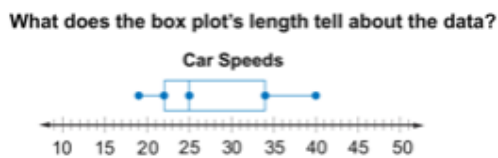
Outliers are not included in the __whiskers__, but they ARE included for the __range__.

Half of the drivers were driving faster than what speed?
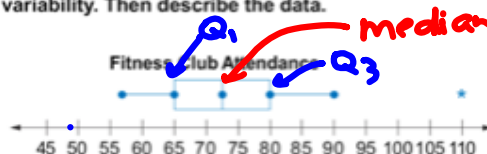
median

Car Speeds

Half the drivers were driving faster than the **Median**. The **median** is the dot inside the box, which is **25**. Half the drivers drove faster than **25**.

What does the box plot's length tell about the data?

Car Speeds

The left part of the box plot is short. This means the data is **closer together**. The right part is longer, so the cars going faster than **25** have speeds that are more spread out.

The box plot below shows the daily attendance at a fitness club. Find the median and the measures of variability. Then describe the data.

Fitness Club Attendance Q₁ median Q₃

45 50 55 60 65 70 75 80 85 90 95 100 105 110

Median is the **Middle of the box** = **73**

Measures of variability are:

Q1 = **65**

Q3 = **80**

IQR = **80-65=15**

Range = **110-57=53**

Outliers? **110**

Describe: Without the outlier, the data is pretty evenly **spread out** because the left and right sides **look alike**.

Draw a box plot of the car speed data.

25 35 27 22 34 40 20 19 23 25 30

1. Order least to greatest:

19   20   (22)   23   25   (25)   27   30   (34)   35   40

2. For our box plot we need:
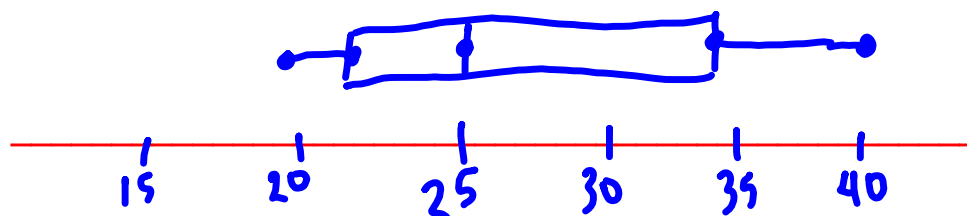
median = 25

Q1 = 22

Q3 = 34

lowest number = 19

highest number = 40

outliers? No

3. Draw a number line.

  Mark the dots for each number above.

15   20   25   30   35   40

Draw a line through the median.

Use Q1 and Q3 to draw a box.

Make whiskers out to the highest and lowest.

12-3

BOX PLOTS

MATH CCSS

Vocab **Vocabulary**

- box plot

minimum

Q1

median

Q3

maximum

outlier

80 100 120 140 160 180 200 220 240 260 280 300 320 340

Outliers are not included in the <u>whiskers,</u> but they ARE included for the <u>range</u>.

Half of the drivers were driving faster than what speed?

Car Speeds

10 15 20 25 30 35 40 45 50
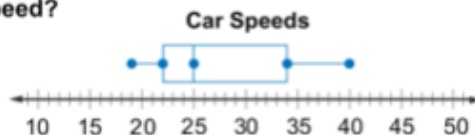
Half the drivers were driving faster than the **median** The **median** is the dot inside the box, which is _35_. Half the drivers drove faster than _25_.

What does the box plot's length tell about the data?

Car Speeds

10 15 20 25 30 35 40 45 50
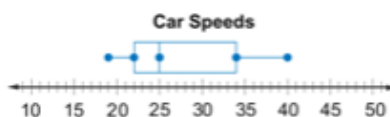
The left part of the box plot is short. This means the data is _close_ _together_. The right part is longer, so the cars going faster than _25_ have speeds that are more spread out.

The box plot below shows the daily attendance at a fitness club. Find the median and the measures of variability. Then describe the data.

Fitness Club Attendance

45 50 55 60 65 70 75 80 85 90 95 100 105 110
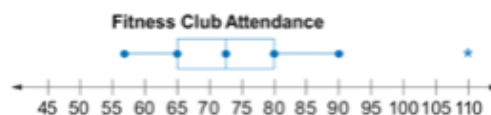
Median is _dot inside the box_ = _73_

Measures of variability are:

Q1 = 65

Q3 = 80

IQR = $Q_3 - Q_1 = 80 - 65 = 15$

Range = $110 - 57 = 53$

Outliers? 110

$$\begin{array}{r} 110 \\ -57 \\ \hline \end{array}$$

Describe: Without the outlier, the data is pretty evenly <u>spread out</u> because the left and right sides <u>look alike</u>.

Draw a box plot of the car speed data.

25 35 27 22 34 40 20 19 23 25 30

1. Order least to greatest:

19, 20 22 22 23 25 25 27 30 34 35 40

2. For our box plot we need:

median = 25

Q1 = 22

Q3 = 34

lowest number = 19

highest number = 40

3. Draw a number line.

 Mark the dots for each number above.

15   20   25   30   35   40

Draw a line through the median.

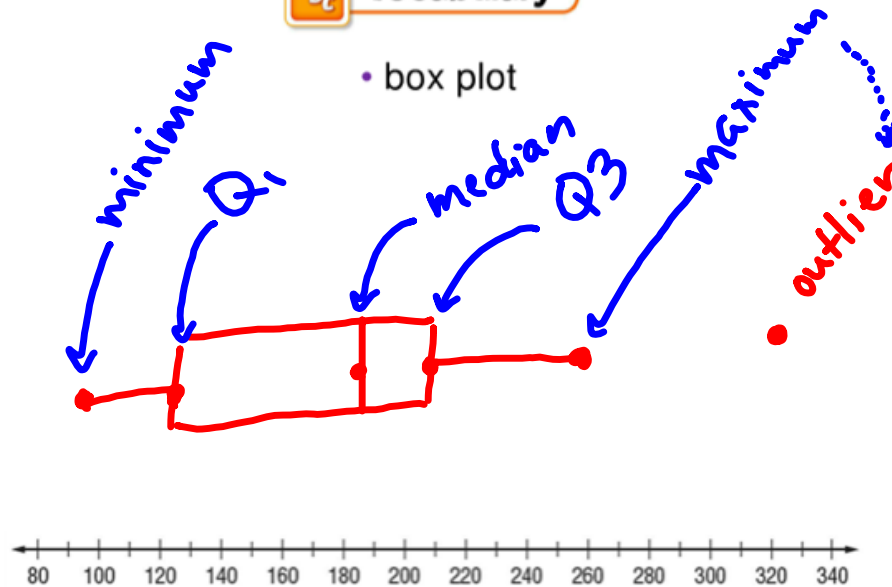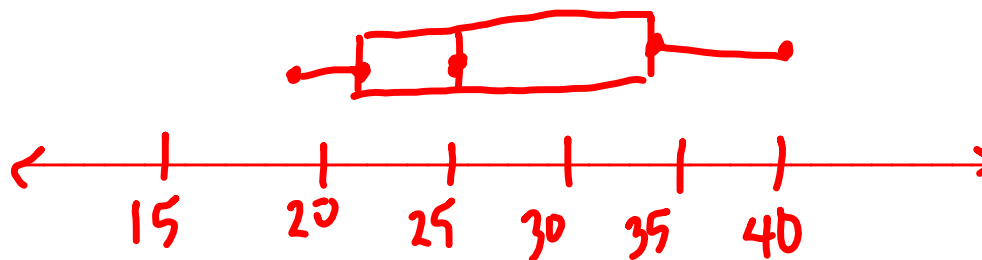Use Q1 and Q3 to draw a box.

Make whiskers out to the highest and lowest.

Please update your table of contents:

Math

Chapter

11

TITLE: Statistical Measures

Date	Lesson	Topic/Assignment
May 17	1-2	Mean, Median, Mode, Range Video Notes
May 17	1-2	Practice WS
May 18	3	Quartiles, IQR, Outliers Video Notes
May 19	1-3	HW Practice WS
May 19	3	Skills Practice WS
Unit 12:		**Statistical Displays**
May 26	1	Line Plots Video Notes
May 26	1	HW Practice WS
May 27	2	Histograms Video Notes
May 27	2	HW Practice WS
May 28	1-2	Review WS

Welcome to our class

IN THIS CLASSROOM
WE DON'T
give up,
BUT WE DO
give our
best effort

HARD
WORK
PAYS
OFF

WELCOME

6th Grade
Homework

Complete Pg 883 WS

June 1, 2021

Complete Pg883 #1-5 Homework. Put in binder.   Name_____

Draw a box plot for each set of data. (Example 1)

🏠 {65, 92, 74, 61, 55, 35, 88, 99, 97, 100, 96}

35 40 45 50 55 60 65 70 75 80 85 90 95 100

Numbers in order:

Median:

Q1:

Q3:

Max:

Min:

Outliers:

2.

Cost of MP3 Players ($)	
95	55
105	100
85	158
122	174
165	162

50 70 90 110 130 150 170 190

Numbers in order:

Median:

Q1:

Q3:

Max:

Min:
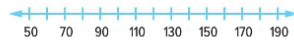
Outliers:

🏠**3** The table shows the length of coastline for the 13 states along the Atlantic Coast. (Examples 1–3)

a. Make a box plot of the data.

Length of Coastline (mi)	
28	130
580	127
100	301
228	40
31	187
192	112
13	

0   100   200   300   400   500   600

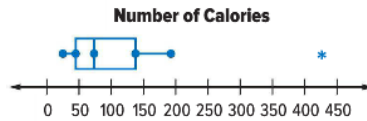Numbers in order:

Median:

Q1:

Q3:

Max:

Min:

Outliers:

b. Half of the states have a coastline less than how many miles?

_____

c. Write a sentence describing what the length of the box plot tells about the number of miles of coastline for states along the Atlantic coast.

_____

_____

_____

4. The amount of Calories for a serving of certain fruits is displayed. Find the median and the measures of variability. Then describe the data. (Example 4)

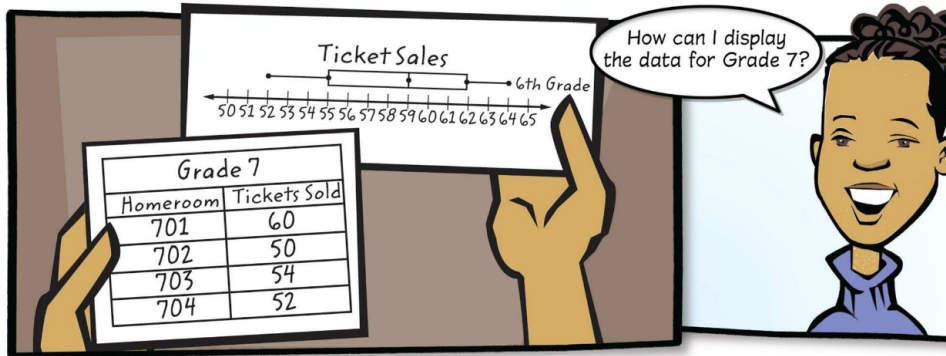**Number of Calories**

_____

_____

_____

_____

5. MP **Model with Mathematics** Refer to the graphic novel frame below for Exercises a–b.

Ticket Sales

• 6th Grade

50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65

Grade 7

Homeroom	Tickets Sold
701	60
702	50
703	54
704	52

How can I display the data for Grade 7?

a. Draw a box plot using the data for Grade 7.

Numbers in order:

Median:

Q1:

Q3:

Max:

Min:

Outliers:

b. Compare the box plots. Which grade sold more tickets? Explain.

_____

_____