

5/10/17 CCM6 and CCM6+
FINAL REVIEW of Unit 13 (test tomorrow).

1. Agenda...HW is study for test...EOG RP due Monday 5/15.
2. Get out study guide pages 57-59 to check and a calculator.
3. Do Wed warm-ups. Use calculator.

→ Fri: No Calc

Wed Warm-ups

① $2\frac{1}{3}$ sug ~~$\frac{1}{4}$ butter~~ 3 doz sug cookies
 \downarrow
 6 cookies

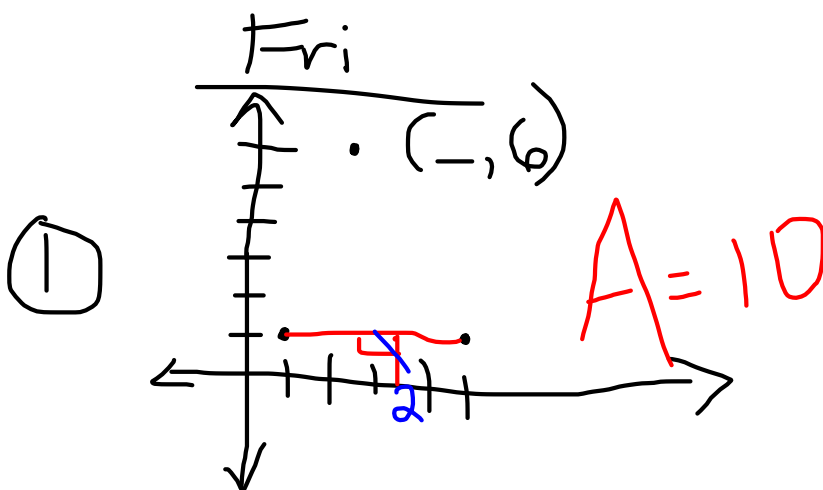
s $2\frac{1}{3}$ $\xrightarrow{-6}$ 7

c $3\frac{1}{2}$ $\xrightarrow{-6}$ 6

② ~~10~~ ²⁰ doz donuts 80 juice

"greatest" \rightarrow GCF = 40

10		20	80
•		12	8
4		3	2



② $\left(\frac{2}{3}\right)^3 = \frac{2}{3} \cdot \frac{2}{3} \cdot \frac{2}{3} = \frac{8}{27}$

HW

Unit 13 STUDY GUIDE

Analyze a set of data (Show all work if necessary):

1. # of slices of pizza eaten by a 16-year old boy in one sitting: $5, 5, 5, 6, 7, 7, 8, 15$
- Mean = $\frac{58}{8} = 7.25$ Median = 6.5 Mode = 5 Range = $15 - 5 = 10$
- Do you think there's an outlier? yes - 15
- Which measure of "center" is best for this set of data? median b/c outlier

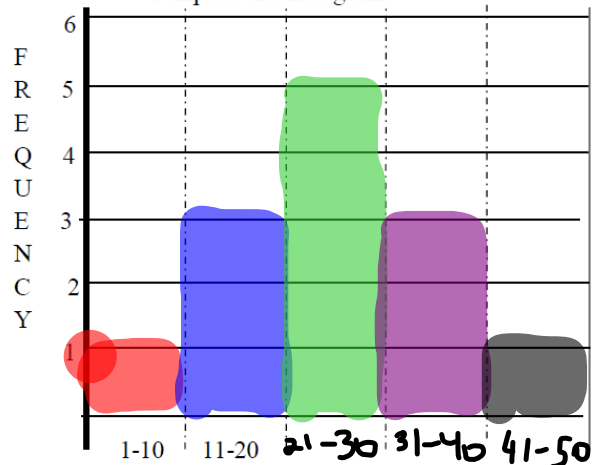
2. Use the data in the table to make a frequency table with intervals. Then use the frequency table to make a histogram.

Miles per Gallon of Vehicles on the Interstate												
12	45	31	9	32	19	27	23	34	29	17	25	28

Complete the frequency table:

Miles per Gallon of Vehicles on I-95	
Miles per Gallon	Frequency
1-10	1
11-20	3
21-30	5
31-40	3
41-50	1

Complete the histogram:

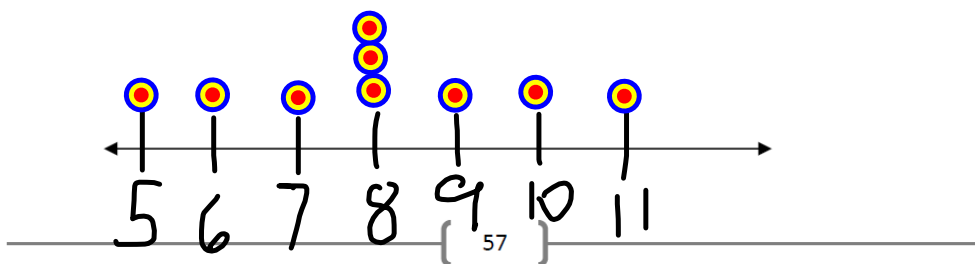


3. Describe the shape of the data in the histogram.

symmetrical, peak at 21-30 21-30

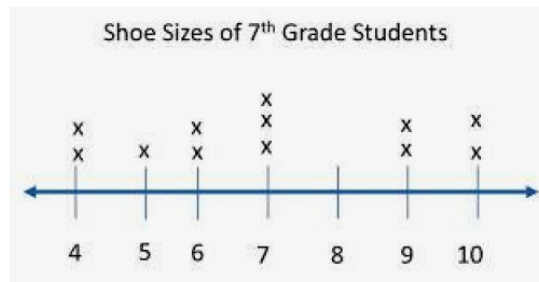
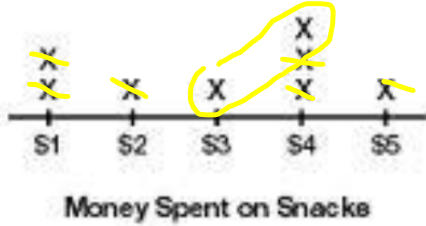
4. Based on the shape of the data, which interval has the median and mean?

5. Create a line plot for this set of data: 8, 11, 5, 8, 9, 6, 8, 7, 10



✓ HW

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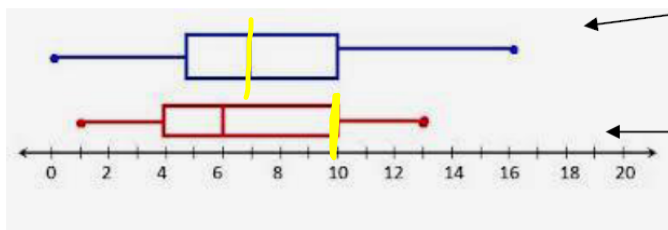
6. From the \$ Spent on Snacks line plot above:

- a) Find the range: $5-1=4$
- b) Find the median: 3.5

7. From the Shoe Sizes line plot above:

- a) Find the mean: $\frac{84}{12}=7$
- b) Find the mode: 7 (peak)

Answer questions 8-10 using the box-and-whisker plots below.



The top box plot shows # of **pencils** in students' backpacks.

The bottom box plot shows the # of **pens** in students' backpacks.

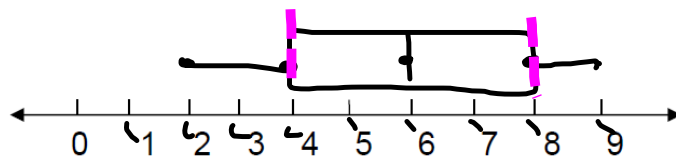
8. What percent of students had more than 7 pencils in their backpacks? 50%

9. What percent of students had less than 10 pens in their backpacks? 75%

10. What do the box-and-whisker plots tell you about students carrying around pens and pencils in their backpacks? **Interpret** the data on the graphs.

wider range of pencils, overall more pencils

11. Create a box-and-whisker plot from the following set of data: 8, 2, 9, 4, 6, 8, 5
 Minimum = 2 Q1 = 4 Median = 6 Q3 = 8 Maximum = 9



12. What is the interquartile range (IQR) of this set of data? $8-4=4$

_____ { 58 } _____

✓ HW

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13. Student heights in inches: 65, 62, 59, 60, 64, 70

Find the mean absolute deviation of student heights.

Fill in the table below to find it: Mean height = $\frac{380}{6} = 63.33$ M. A. D. = $\frac{18}{6} = 3$

DATA	DIFFERENCE from MEAN	Absolute Value
65	65 - 63.33	1.67
62	62 - 63.33	1.33
59	59 - 63.33	4.33
60	60 - 63.33	3.33
64	64 - 63.33	0.67
70	70 - 63.33	6.67

(Round to the nearest hundredth if necessary)

If a data set has an outlier, the MAD will be higher than a data set with data values that are all very close together.

$$\begin{array}{r} 1.67 \\ 1.33 \\ 4.33 \\ 3.33 \\ 0.67 \\ 6.67 \\ \hline 18 \end{array}$$



more spread out from mean=higher MAD

What do YOU want to review?

95, 8, 86, 67, 15

$$\text{Mean} = 54.2$$

95	95 - 54.2	40.8
8	8 - 54.2	46.2
86	86 - 54.2	31.8
67	67 - 54.2	12.8
15	15 - 54.2	+69.2
		<u>200.8</u>
		÷5
		<u>40.16</u>

- Make a box-plot

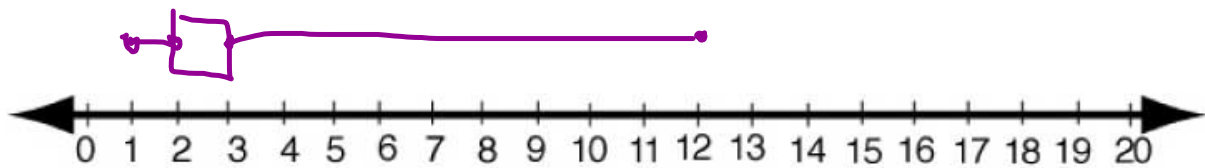
3, 2, 2, 2, 2, 2, 3, 12, 2, 4, 3, 2, 4, 1

1, 2, 2, $\boxed{2}$, 2, 2, 2, 2, 3, 3, $\boxed{3}$, 4, 4, 12

\downarrow
 $\textcircled{2}$



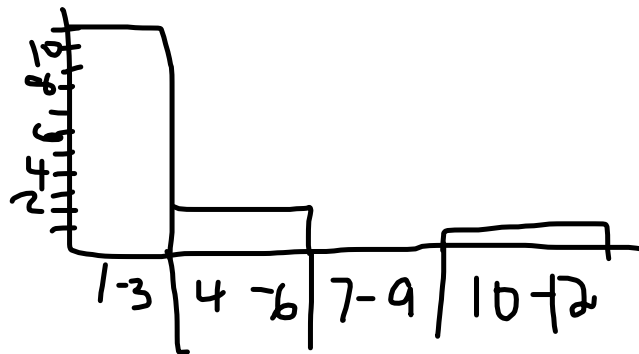
Number Line

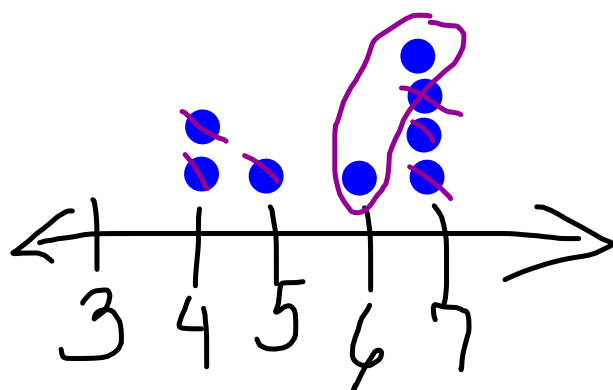


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1, 2, 2, 2, 2, 2, 2, 2, 3, 3, 3, 4, 4, 12

1-3, 4-6, 7-9, 10-12
 11, 2, 0, 1



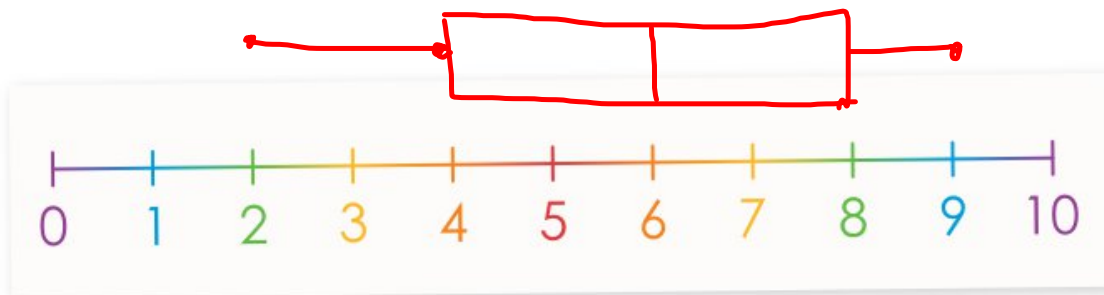


$$\text{mean} = \frac{47}{8} = 5.9$$

$$\text{Median} = 6.5$$

$$\text{mode} = 7$$

$$\text{range} = 7 - 4 = 3$$

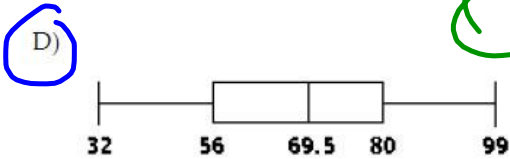
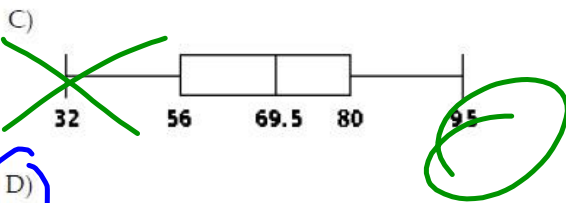
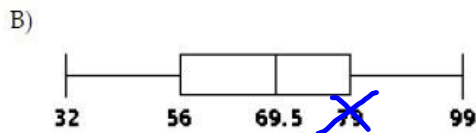
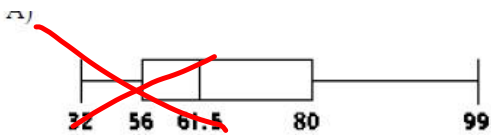


A) 2, ~~5~~, 6, 6, 8, 8, 9

~~B)~~ 1, 4, 5, 6, 8, 8, 9

C) 2, ~~3~~, 4, 6, 8, 9, 9

D) 2, ~~4~~, 5, 6, 7, ~~8~~, 9



Which boxplot matches?

32, 55 | 57, 69 | 70, 75 | 85, 99
 56 69.5 80