6th Grade
May 18, 2021

Today we will:

-Review HW

-Video notes on measures of variation

-Begin HW

HOMEWORK:

Practice WS

ALEKS time and topics due TONIGHT at 11:59PM

Task #1: Check completed notes/HW and put in notebook if it is not already.

<div style="border: 1px solid black; background: yellow;">
Mean, Median, Mode, Range Video Notes, Ch11 Lesson 1 and 2, May 11
</div>

Mean is   summarizes the data using a single number.

Example (In the video, I put the examples under the flap. Write it here in your notes):

Find the mean number of CDs purchased:

Find the mean number of CDs purchased.

3.	4	6
0.	2	

$+4$
$+6$
$+0$
$+2$
$\frac{15}{5} = 3$

Median is   the value at the center of a sorted list.

Example: Find the median of the number set {5, 6, 10, 7, 4}:

Find the median
{5 6 10 7 4}

① Sort first: 4,5,6,7,10

②, 6

* What if an even # in set?
Find the 2 in the middle and add them,
then ÷2

Mode is   the number that appears the most.

Example: Find the mode of the number set {0, 6, 5, 3, 5, 4}:

Find mode.
{0 6 5 3 5 4}

5 is the mode because
it is the only one that
appears twice.

Range is   the difference between the greatest and least data
values.

Example: Find the range of the number set {8, 25, 30, 50, 70}

Find range.
{8 25 30 50 70}

① Find max and min.
      70   8

② 70-8 = 62

Example from middle of foldable: {12, 13, 20, 13, 20, 18}:

Find: {12, 13, 20, 13, 20, 18}
Mean: 16
Median: 12,13, |13,18| 20,20 = 15.5 $\frac{13+18}{2}, \frac{31}{2} = 15.5$
Mode: 13,20
Range: 20-12 = 8

Task #1: Check completed notes/HW and put in notebook if it is not already.

Find the mean, median, mode, and range for each set of data.

Find the median and mode for each set of data.

1. age of children Danielle babysits:
6, 9, 2, 4, 3, 6, 5

mean: $(6+9+2+4+3+6+5) \div 7$
$= 35 \div 7 = \boxed{5}$

Put in order: 2, 3, 4, ⑤, 6, 6, 9
median: ⑤ is the middle number
mode: ⑥ appears the most
range = 9-2 = ⑦ (biggest - smallest)

2. hours spent studying:
13, 6, 7, 13, 6

mean: $(13+6+7+13+6) \div 5$
$= 45 \div 5 = \boxed{9}$

Put in order: 6, 6, 7, 13, 13
Median: ⑦ is the middle number
Mode: Both ⑥ and ⑬ occur the most
Range: 13 - 6 = ⑦

3. age of grandchildren:
1, 15, 9, 12, 18, 9, 5, 14, 7

Mean: $(1+15+9+12+18+9+5+14+7) \div 9$
$= \boxed{10}$

Put in order: 1, 5, 7, 9, ⑨, 12, 14, 15, 18
Median: ⑨ is the middle number
Mode = ⑨ occurs the most
Range = 18 - 1 = ⑰

4. points scored in video game:
13, 7, 17, 19, 7, 15, 11, 7

mean: $(13+7+17+19+7+15+11+7) \div 8$
$= 96 \div 8 = \boxed{12}$

Put in order: 7, 7, 7, 11, 13, 15, 17, 19
Median: $\frac{11+13}{2} = \boxed{12}$
Mode: ⑦ appears the most
Range: 19 - 7 = ⑫

5. amount of weekly allowances:
3, 9, 4, 3, 9, 4, 2, 3, 8

Mean: $(3+9+4+3+9+4+2+3+8) \div 9$
$= 45 \div 9 = \boxed{5}$
Put in order: 2, 3, 3, 3, ④, 4, 8, 9, 9
Median ④   Mode: ③   Range: 9-2 = ⑦

6. height of trees in feet:
25, 18, 14, 27, 25, 14, 18, 25, 23

Mean: $(25+18+14+27+25+14+18+25+23) \div 9$
$= 189 \div 9 = \boxed{21}$
Put in order: 14, 14, 18, 18, ㉓, 25, 25, 25, 27
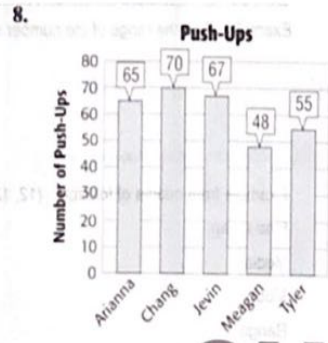Median: ㉓   Mode: 25   Range = 27 - 14 =

Find the mean, median, mode, and range for each set of data.

Find the mean, median, and mode of the data represented.

7.

Annual Rainfall (in.)			
21	23	27	28
32	32	34	43

Mean: $(21+23+27+28+32+32+34+43) \div 8$
$= 240 \div 8 = \boxed{30}$

Put in order: 21, 23, 27, 28, 32, 32, 34, 43
Median: $\frac{28+32}{2} = \boxed{30}$

Mode: ㉜
Range = 43 - 21 = ㉒

8.

Push-Ups

Number of Push-Ups: Arianna 65, Chang 70, Kevin 67, Meagan 48, Tyler 55

Mean: $(65+70+67+48+55) \div 5$
$= 305 \div 5 = \boxed{61}$
Put in order: 48, 55, ㊅5, 67, 70
Median ㊅5
Mode: None
Range: 70 - 48 = ㉒

Please update your table of contents:

Math Chapter 11

TITLE: Statistical Measures

Mean Median Mode Range

Hey Diddle Diddle,

the MEDIAN is the middle

You add then divide for the MEAN

The MODE is the one

that appears there most

And the RANGE is

the difference between!

Watch video and take notes. Put in binder.

Name_____

Measures of Variation _____

_____

A quartile is _____

_____

Example: {1, 8, 25, 30, 50, 70}

The first quartile (Q1) is _____

_____

Example: {1, 8, 25, 30, 50, 70}

The third quartile (Q3) is _____

_____

Example: {1, 8, 25, 30, 50, 70}

Interquartile range is _____

_____

Example: {1, 8, 25, 30, 50, 70}

An outlier is _____

_____

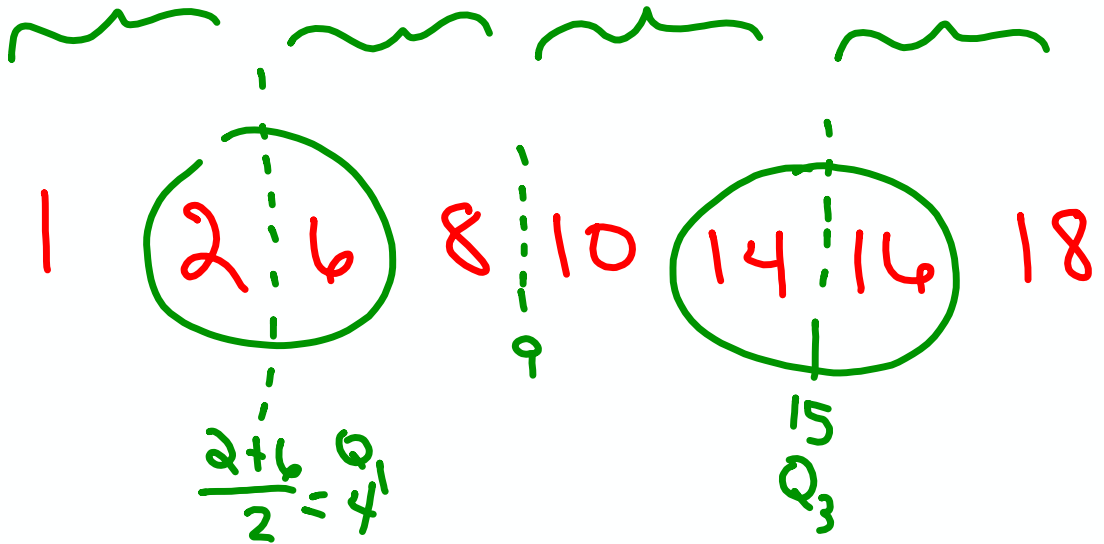Example: {60, 89, 90, 92, 92, 94, 95}

Example: {10, 15, 25, 30, 30, 90}
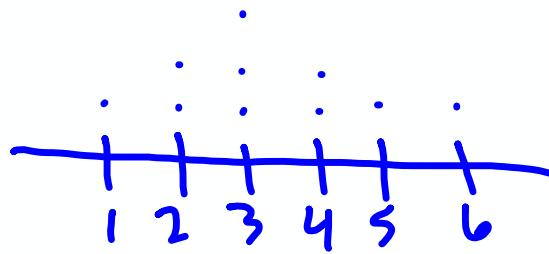
Median: 27.5   Q₁ $\frac{25+30}{2} = 27.5$ Q₃

Q1: 15

Q3: 30

IQR: $Q_3 - Q_1 = 30 - 15 = 15$

Outliers? 90

1   2   6   8   10   14   16   18

$$\frac{2+6}{2} = 4 \quad Q_1$$

9

15

Q_3

1, 2, 2, 3, 3, 3, 4, 4, 5, 6

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

HW Practice WS

HOMEWORK

Name _____

Unit _____ Lesson _____ Due Date _____

Unit 11 Lesson 1 and 2 Homework Practice
Measures of Center

Calculators OK

Find the mean, median, and mode for each set of data. If necessary, round to the nearest tenth.

1. 4, 6, 12, 5, 8

2. 3.1, 4.5, 4.5, 4.3, 6.0, 3.2

Numbers in order:
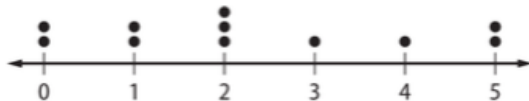
Mean:

Median:

Mode:

Numbers in order:

Mean:

Median:

Mode:

Find the mean, median, and mode for each set of data. If necessary, round to the nearest tenth.

3.

Numbers in order:

Mean:

Median:

Mode:

Lesson 3 Homework Practice
Measures of Variability

Find the measures of variability and any outliers for each set of data.

1. {3, 9, 11, 8, 6, 12, 5, 4, 29}

Numbers in order:

Range:

Q1:

Q3:

IQR:

Outliers:

2.

Fossils in Museum Exhibits	
64	67
69	79
81	81
83	83
84	86
90	91
92	95

Numbers in order:

Range:

Q1:

Q3:

IQR:

Outliers:

For Exercises 3 and 4, use the data in the table at the right.

3. What is the range of annual growth rates shown?

4. What is the interquartile range for the populations? (Note: The numbers are in backwards order.)

Median:

Q1:

Q3:

IQR:

Populations of the World's Largest Cities 2000		
City	Population millions	Annual Growth Rate (%)
Tokyo, Japan	26.4	**0.51**
Mexico City, Mexico	18.1	**1.81**
Mumbai, India	18.1	**3.54**
Sao Paulo, Brazil	17.8	**1.43**
New York City, U.S.	16.6	**0.37**
Lagos, Nigeria	13.4	**5.33**
Los Angeles, U.S.	13.1	**1.15**
Calcutta, India	12.9	**1.60**
Shanghai, China	12.9	**0.35**
Buenos Aires, Argentina	12.6	**1.14**