

Representing Data Using Plots

Long-Term Memory Review – Grade 7

Review 1

Use the following words to fill in the sentences.

add subtract multiply divide range mean outlier median

1. When finding the range for a set of data, _____ the highest and lowest data values.
2. When finding the mean for a set of data, _____ all the data values together and _____ by how many pieces of data there are.
3. The _____ of data describes the difference in the highest and lowest pieces of data.
4. A(n) _____ is an extreme value that does not fit the general pattern of the data.

The number of students for each period is shown in the table below.

	Period 1	Period 2	Period 3	Period 4	Period 5
Boys	11	13	12	19	10
Girls	9	11	14	13	13

Use this data to answer the following questions.

5. What is the range of the number of girls in the 5 periods?
6. What is the mean number of all students in the 5 periods?
7. What is the mean number of boys in the 5 periods?
8. What is the mean number of girls in the 5 periods?
9. In which period is the outlier for the set of data for the boys?

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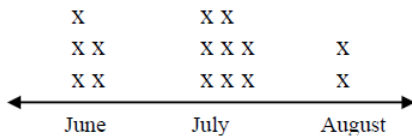
Review 2

The high temperatures for three cities are reported in the table below.

	Day 1	Day2	Day 3	Day 4	Day 5
Los Angeles	88°	83°	79°	80°	85°
Denver	60°	61°	60°	62°	75°
Orlando	75°	78°	80°	82°	88°

Use the table to answer the following questions.

- Which city has the greatest range in temperatures for the 5 days?
- How does the outlier temperature for Denver affect its mean temperature?
- What is the median of the temperatures for Los Angeles?
- The line plot shows the data for the number of birthdays in the summer months for Ms. Rapp's math class. Use the data to answer the following questions.



- What is the range of the data?
 - What is the mean number of birthdays in each summer month?
- Create a stem-and-leaf plot in the space provided that represents the following data. (*Hint: use the stem to represent the tens digit and the leaf to represent the ones digit.*)

15, 21, 26, 16, 21, 32, 25, 41, 44, 32

STEM | LEAF

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Review 3

Rick, Tina, and Lucy each took the 5 tests shown in the table below.

	Test 1	Test 2	Test 3	Test 4	Test 5
Rick	85	88	90	70	100
Tina	60	65	60	60	80
Lucy	50	75	80	75	90

1. Who has the largest range in scores? What is the range?
2. What is the difference between the mean scores for Rick and Lucy?
3. How does the outlier affect the range in the set of data? 5, 6, 7, 7, 7, 8, 9, 15

Use the stem-and-leaf plot to answer the following questions.

1		5	6	7
2		8	9	
3		0	0	7
4				
5		6		

4. What numbers are included in the set of data?
5. What is the median number of the set of data?
6. What number is the outlier in the set of data?

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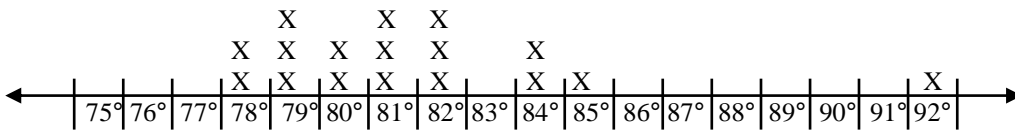
Review 4

1. The table below shows 2nd Quarter test scores for Jan and Matt.

	Test 1	Test 2	Test 3	Test 4
Jan	75	80	60	90
Matt	70	65	90	95

Compare the differences between Jan and Matt's scores using the mean, median, and range.

Julie's family went on a vacation trip. Daily high temperatures for their trip are given in the line-plot below.



Using this data, answer the following questions about Julie's family trip.

- What was the median daily high temperature for their trip?
- What was the range of daily high temperatures for their trip?
- One day was considerably hotter than the rest. The temperature on that day is considered an outlier. Recalculate the range of temperatures after eliminating the outlier.
- What set of data is represented in the stem-and-leaf plot below?

0	2	5	6	6	
1	0	3	5	5	8
2	3	7	9		

- What is the range and median for the set of data in the stem-and-leaf plot in question #3?

Range = _____

Median = _____

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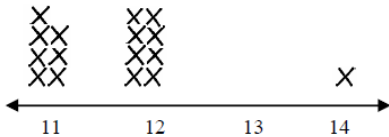
Quiz

1. The table below shows the 3rd Quarter test scores for Bob and Tina.

	Test 1	Test 2	Test 3	Test 4
Bob	85	88	90	100
Tina	70	95	90	85

Compare the differences between Bob and Tina's scores using the mean, median, and range.

2. The line plot below shows the ages of students in Mr. Rhode's math class.



Use the data to answer the following questions.

- What is the range of the data?
- How does the outlier affect the mean age of the students?

Use the stem-and-leaf plot below to answer the following questions.

0		5
1		1 1 5 8
2		2
3		
4		4

- What are the numbers that are included in the stem-and-leaf plot?
- What is the mean of the set of data?
- What is the difference between the mean and the median for the set of data? Which piece of data could account for this difference? What is that piece of data called?

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Answers

Review 1- Answers

- 1) subtract
- 2) add; divide
- 3) range
- 4) outlier
- 5) 5
- 6) 25
- 7) 13
- 8) 12
- 9) Period 4

Review 2- Answers

- 1) Denver
- 2) increases the mean and the range
- 3) 83°
- 4) a) 6 b) 5
- 5)

STEM	LEAF
1	5 6
2	1 1 5 6
3	2 2
4	1 4

Review 3- Answers

- 1) Lucy; 40
- 2) 12.6 (Rick = 86.6; Lucy = 74.0)
- 3) increases the range and the mean
- 4) 15, 16, 17, 28, 29, 30, 30, 37, 56
- 5) 29
- 6) 56

Review 4- Answers

- 1) Matt's mean is 3.75 greater, median is 2.5 greater, and range is the same
- 2) 81°
- 3) 14°
- 4) 7°
- 5) 2, 5, 6, 6, 10, 13, 15, 15, 18, 23, 27, 29
- 6) Range = 27; Median = 14

Quiz - Answers

- 1) Bob's mean is 5.75 greater, median is 1.5 greater, and range is 10 less.
- 2) a) 3 b) increases the mean
- 3) 5, 11, 11, 15, 18, 22, 44
- 4) 18
- 5) difference = 3; 44 accounts for the difference; 44 is an outlier