

Name Key

Date Due _____

6th grade

MATH STUDY GUIDE

Chapter 11 Statistics

Complete the work inside the boxes under the problem. Circle your answer.

1. Find mean.

25, 16, 20, 21, 20

Mean: Add all the numbers and divide by how many there are.

$$\frac{25 + 16 + 20 + 21 + 20}{5} = \frac{102}{5} = 20.4$$

2. Find mean.

12, 20, 8, 15, 16, 14, 7, 5, 11, 8, 14

$$\frac{12 + 20 + 8 + 15 + 16 + 14 + 7 + 5 + 11 + 8 + 14}{11} = \frac{130}{11}$$

*Round to nearest tenth.

$$= 11.8$$

3. Find median.

27, 29, 33, 37, 35, 39

*Don't forget to put in order!

27, 29, 33 | 35, 37, 39

*Median = Middle number!

6 numbers, so find the middle 2 numbers, Add them and divide by 2 to get median.

$$33 + 35 = 68 \div 2 = 34 = \text{median}$$

4. Find median.

~~15, 22, 24, 18, 10, 12, 14, 17, 25, 21, 18~~

*Don't forget to put in order!

10, 12, 14, 15, 17, 18, 21, 22, 24, 25

Make sure you have 11 numbers in order!

Find the middle number, there will be

5 numbers on each side of it. Median = 18.

5. Find median.

12, 16, 17, 17, 19, 21, 25, 26

*Don't forget to put in order!

Already in order! Yay!

8 numbers - find the 2 in middle.

$$17 + 19 = 36 \div 2 = 18 = \text{median}$$

6. Find mode. 12, 33, 27, 16, 30

Mode occurs most often.

None

7. Find mode. 75, 55, 78, 68, 57, 60, 57, 66

57 is the only one that is repeated (appears twice).

8. Find range. 25, 28, 11, 16, 15

*Don't forget to put in order!

11, 15, 16, 25, 28

Range = greatest - least

$$28 - 11 = 17$$

9. Find range. 49, 44, 44, 55, 49, 37, 40, 47

*Don't forget to put in order!

37, 40, 44, 44, 47, 49, 49, 55

Range = greatest - least = $55 - 37$

$$= 18$$

10. Find interquartile range. 81, 69, 90, 79, 59, 125, 95, 116, 183, 97, 92, 50, 122, 55, 92

*Don't forget to put in order!

50, 55, 59, 69, 79, 81, 90, 92, 92, 95, 97, 116, 122, 125, 183

Make sure you have 15 numbers in order.

92 is the median, with 7 numbers on each side.

Q_1 is middle of lower half = 69

Q_3 is middle of upper half = 116

$$IQR = Q_3 - Q_1 = 116 - 69 = 47$$

11. Find interquartile range.

*Don't forget to put in order!

Apartment Rental Prices	
Apartment Choice	Price per Month (\$)
1	760 ✓
2	755 ✓
3	735 ✓
4	750 ✓
5	730 ✓
6	765 ✓
7	735 ✓

730, 735, 735, 750, 755, 760, 765
 Q_1 median Q_3

$$\begin{aligned} IQR &= Q_3 - Q_1 \\ &= 760 - 735 \\ &= \mathbf{25} \end{aligned}$$

12. Are there any outliers? If so, what are they?

45, 42, 48, 40, 52, 14, 50

14, 40, 42, 45, 48, 50, 52

Outliers are too low or too high to fit the rest of the data. Here, 14 looks like an outlier because the rest of the numbers are in the 40s and 50s.

13. Are there any outliers? If so, what are they?

Number of Visitors at the Zoo				
325	378	419	255	321
255	278	385	485	399

255, 255, 278, 321, 325, 378, 385, 399, 419, 485

This data is all spread out, but there is no obvious outlier that is too low or too high.