**LESSON 38--NOTES**

**CENTRAL TENDENCY--MEAN, MEDIAN, MODE & RANGE**

**MEAN**—AVERAGE

**MEDIAN**—THE MIDDLE NUMBER IN A SET OF DATA, NUMBERS MUST BE IN

 ORDER!!

**MODE**—THE NUMBER OR ITEM THAT OCCURS THE MOST

**RANGE**—THE DIFFERENCE BETWEEN THE LARGEST AND SMALLEST

EX: FIND THE MEDIAN, MODE AND RANGE OR EACH:

61, 52, 41, 53, 50, 41, 68, 58 100, 94, 50, 77, 74

49, 43, 52, 57, 62, 64, 54, 46, 41 65, 88, 91, 102, 55

 88, 76, 88, 98, 61

STEM AND LEAF METHOD: 90, 66, 85, 92, 81

EX: IF THE AVERAGE RAINFALL OF THE 1ST 7 MONTHS IS 2 INCHES, HOW MUCH WILL IT NEED TO RAIN NEXT MONTH SO THAT THE AVERAGE WILL BE 3 INCHES?

EX: KAREN’S 1ST 4 TESTS WERE 98, 85, 76, AND 100.WHAT WILL KAREN NEED TO SCORE ON HER 5TH TEST SO THAT HER AVERAGE WILL BE A 90?

**LESSON 38--NOTES—STUDENT COPY**

**CENTRAL TENDENCY--MEAN, MEDIAN, MODE & RANGE**

**MEAN**—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MEDIAN**—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**MODE**—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**RANGE**—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**EX: FIND THE MEDIAN, MODE AND RANGE OR EACH**:

61, 52, 41, 53, 50, 41, 68, 58 100, 94, 50, 77, 74

49, 43, 52, 57, 62, 64, 54, 46, 41 65, 88, 91, 102, 55

 88, 76, 88, 98, 61

**STEM AND LEAF METHOD:** 90, 66, 85, 92, 81

EX: IF THE AVERAGE RAINFALL OF THE 1ST 7 MONTHS IS 2 INCHES, HOW MUCH WILL IT NEED TO RAIN NEXT MONTH SO THAT THE AVERAGE WILL BE 3 INCHES?

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**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Class\_\_\_\_\_**

**LESSON 38: CENTRAL TENDENCY—MEAN, MEDIAN, MODE, & RANGE**

**NWNC!**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NAME** | **Trial 1 (sec)** | **Trial 2 (sec)** | **Trial 3 (sec)** | **Trial 4 (sec)** |
| Mike | 34.1 | 33.8 | 30.5 | 31.6 |
| Alan | 32.5 | 33.3 | 34.0 | 33.8 |
| Jason | 41.7 | 40.0 | 39.2 | 38.4 |
| Scott | 29.4 | 29.4 | 31.0 | 31.6 |
| Ryan | 33.8 | 32.5 | 33.8 | 33.4 |

Practice times for 5 swimmers in the 50-meter freestyle are given in the table. Find the following:

1. The mean of Ryan’s times. \_\_\_\_\_\_\_\_\_\_\_\_

2. The mean of Scott’s times. \_\_\_\_\_\_\_\_\_\_\_\_

3. The mean of the times on Trial 2. \_\_\_\_\_\_\_\_\_\_\_\_

4. The median of Mike’s times. \_\_\_\_\_\_\_\_\_\_\_\_

5. The median of the times on Trial 3. \_\_\_\_\_\_\_\_\_\_\_\_

6. The mode of all 20 times in the table. \_\_\_\_\_\_\_\_\_\_\_\_

7. The mean weight of 35 math students is 100.7 pounds. \_\_\_\_\_\_\_\_\_\_\_\_

 If the students could all stand on the scale together,

 what would their total weight be?

**NAME THAT FORMULA!!! USE YOUR CHART!**

8. Area of a Circle 9. Volume of a Cylinder 10. Area of a Square

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

 ( both formulas)

11. Circumference of a Circle 12. Area of a Triangle

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (both formulas) (both formulas)

**USE THE MEASUREMENT SIDE OF YOUR CHART TO ANSWER THE FOLLOWING:**

13. How many seconds are in 6 ½ minutes? \_\_\_\_\_\_\_\_\_\_\_\_

14. How many feet is 222 inches? \_\_\_\_\_\_\_\_\_\_\_\_

15. How many centimeters are in 3 meters? \_\_\_\_\_\_\_\_\_\_\_\_

16. How many feet are in 1 mile? \_\_\_\_\_\_\_\_\_\_\_\_

**WRITE THE FOLLOWING IN WORDS:**

17.  is read \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_divided by

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ equals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**If there are 5 blue marbles, 6 red marbles, 2 yellow marbles, and 9 green marbles in a bag….**

**(ratios can be written with : OR “to” OR in fraction form. They must be in lowest terms.**

18. What is the ratio of yellow marbles to the total number of marbles? \_\_\_\_\_\_\_\_\_\_\_\_

19. What is the ratio of green marbles to red marbles? \_\_\_\_\_\_\_\_\_\_\_\_

20. What is the ratio of blue marbles to yellow marbles? \_\_\_\_\_\_\_\_\_\_\_\_