Mean, Median, Mode, and Range Lesson Plans

Created By: Dance Party in Room 15
Dear Customer,

This product contains lesson plans and activities to teach mean, median, mode, and range.

These plans follow closely with the children’s book *Joey Meets the Average Family*.

However, this book is not necessary to follow these plans.

You will also receive a pre-test and a post-test, 8 task cards, and suggested enrichment or remediation activities.

Enjoy!
Lesson Plan 1

**Mean**

- **Teacher Instructions:**
  - Each student will be given a set of data. They will calculate the mean, median, mode, and range for their data set.

**Suggested Enrichment or Remediation Activities:**

- **Activity:**
  - Students will create a bar graph using their data set. They will then analyze the graph to determine the mode, median, mean, and range.

**Range**

- **Teacher Instructions:**
  - Students will be given a set of data. They will calculate the range of their data set.

**Suggested Enrichment or Remediation Activities:**

- **Activity:**
  - Students will create a line plot using their data set. They will then analyze the line plot to determine the range.

**Median**

- **Teacher Instructions:**
  - Each student will be given a set of data. They will calculate the median of their data set.

**Suggested Enrichment or Remediation Activities:**

- **Activity:**
  - Students will create a box plot using their data set. They will then analyze the box plot to determine the median.

**Lesson Plan 2

**Mode**

- **Teacher Instructions:**
  - Students will be given a set of data. They will calculate the mode of their data set.

**Suggested Enrichment or Remediation Activities:**

- **Activity:**
  - Students will create a frequency table using their data set. They will then analyze the frequency table to determine the mode.

**Lesson Plan 3

**IQR**

- **Teacher Instructions:**
  - Each student will be given a set of data. They will calculate the interquartile range (IQR) of their data set.

**Suggested Enrichment or Remediation Activities:**

- **Activity:**
  - Students will create a box and whisker plot using their data set. They will then analyze the box and whisker plot to determine the IQR.

**Lesson Plan 4

**Teacher Instructions:**

- **Mean**
  - Calculate the mean of the numbers.

- **Mode**
  - Determine the mode of the numbers.

- **Median**
  - Find the median of the numbers.

- **Range**
  - Compute the range of the numbers.

**Suggested Enrichment or Remediation Activities:**

- **Activity:**
  - Students will create a stem-and-leaf plot using their data set. They will then analyze the stem-and-leaf plot to determine the mean, median, mode, and range.

**Thank you!**

I really appreciate the quality feedback that allowed the product to be more polished.

For an assessment of this form and another example, please visit:

[Assessment Form](https://example.com/assessment)

[Another Example](https://example.com/another_example)
Lesson Plans Suggestions

Day 1: (Differentiating Terminology)

- Give students the mean, median, mode, and range pretest.
- Introduce the “Average Family” by reading Joey Meets the Average Family or you may show the students each family members’ mask while describing the characters.
- Show students the “Mean” mask and explain that he is very mean and bossy. Explain that he makes students do the most math. Tell the students that Mean thinks that he is the most important because he is what people think of when they think of the word “average.”
- Show students the “Mode” mask and explain that she likes to be the most popular and she has a big mouth. Inform students that we see her the most.
- Show the students the “Median” mask and inform students that she is very shy and she likes to stay in between her brother and sister. She is always found in the middle.
- Show the students the “Range” mask and explain that he is lazy. He only want to do one math problem and be done. (Subtract the smallest number from the largest number.)
- Tell the students that each family member is a type of average but each sibling gives different information.
- Make copies of the Average Family Masks and play “Who am I?”
Lesson Plans Suggestions

Day 2: (Mean)

• Reintroduce “Mean” and demonstrate how to find the mean.
• Have students practice finding the mean. (Worksheet 1)

Day 3: (Median & Mode)

• Review “Mean”, and reintroduce “Median” and “Mode.”
• Have students practice finding the mode and median. (Worksheet 2)

Day 4: (Range)

• Review the characters “Mean,” “Median,” and “Mode.”
• Reintroduce “Range” and have students practice finding the range. (Worksheet 3)

Day 5 (Review)

• Choose different students to describe each silly character and their job.
• Have students practice finding the mean, median, mode, and range. (Worksheet 4)
• Give mean, median, mode, and range post test.
Who am I?

Teacher Instructions:

1. Make enough copies of the masks for each student. (Example: Say you have 20 students, make sure you have 20 masks total: 5 Mean masks, 5 Mode masks, 5 Median masks, 5 Range masks.) You may print out the color copies or print the black and white copies on the appropriate color (Mean-red, median-purple, mode-pink, and range-yellow).

2. Cut out and laminate if desired.

3. After introducing each character, give every student a mask.

4. Read the prompts on the following page out loud. When students hear the clue for each character, they will stand covering their face with their mask.
Who am I?

1. I am what people think of when they hear the word ‘average.’ Who am I? (Mean)
2. To find me, order your set of numbers from least to greatest and find the middle number. Who am I? (Median)
3. I like to be seen and heard. When you spot a number that appears the most, you find me. Who am I? (Mode)
4. You find me when you add all of the numbers and divide by the number of addends. Who am I? (Mean)
5. I only like to do one math problem which is subtract the smallest number from the largest number. Who am I? (Range)
6. Teachers use me when they average students’ grades. Who am I? (Mean)
7. I am the difference between the largest number and the smallest number. Who am I? (Range)
8. You will always find me in the middle. Who am I? (Median)
9. Sometimes there will be more than one of me, and sometimes you will not see me at all. Who am I? (Mode)
10. I am a type of average. Who am I? (Mean, median, mode, and range)

Note: You may create your own if desired or you may play this short game every day to allow students to master the terminology.
Mean
Mean
Mode
Mode
Median
Median
Range
Range
Mean

Directions: Find the mean of each set of numbers. Show your work.

1) 25, 10, 5, 0
2) 5, 3, 6, 1, 5

Mean: Mean:

3) 7, 3, 6, 4, 5
4) 100, 200, 600

Mean: Mean:

5) Melissa’s test scores were 85, 85, 100, 92, and 73. What is the mean of Melissa’s test scores?

A) 85 
B) 27 
C) 87 
D) 90
Mean (Key)

Directions: Find the mean of each set of numbers. Show your work.

1) 25, 10, 5, 0
   Mean: 10

2) 5, 3, 6, 1, 5
   Mean: 4

3) 7, 3, 6, 4, 5
   Mean: 5

4) 100, 200, 600
   Mean: 300

5) Melissa’s test scores were 85, 85, 100, 92, and 73. What is the mean of Melissa’s test scores?
   
   A) 85  
   B) 27  
   C) 87  
   D) 90
Mode & Median

Directions: Find the mode and median of each set of numbers. Show your work.

1) 21, 18, 18
   Mode: 
   Median: 

2) 14, 13, 16, 13, 15
   Mode: 
   Median: 

3) 9, 0, 3, 2, 5
   Mode: 
   Median: 

4) 12, 5, 7, 5, 15, 5
   Mode: 
   Median: 

5) Find the median and mode of the following numbers.
   8, 2, 8, 3, 10, 1, 8
   A) The mode is 8, and the median is 8.
   B) The mode is 8, and the median is 3.
   C) The mode is 10, and the median is 8.
   D) The mode is 9, and the median is 3.
Mode & Median (Key)

Directions: Find the mode and median of each set of numbers. Show your work.

1) 21, 18, 18
Mode: 18
Median: 18

2) 14, 13, 16, 13, 15
Mode: 13
Median: 14

3) 9, 0, 3, 2, 5
Mode: No mode
Median: 3

4) 12, 5, 7, 5, 15, 5
Mode: 5
Median: 6

5) Find the median and mode of the following numbers:
8, 2, 8, 3, 10, 1, 8

A) The mode is 8, and the median is 8.
B) The mode is 8, and the median is 3.
C) The mode is 10, and the median is 8.
D) The mode is 9, and the median is 3.
Range

Directions: Find the range of each set of numbers. Show your work.

1) 15, 10, 20
   Range:

2) 1, 3, 2, 1, 1, 6, 7
   Range:

3) 100, 85, 78, 92, 0
   Range:

4) 5, 7, 15, 3, 17
   Range:

5) Find the range of the following numbers:
   21, 67, 88, 22, 22, 4, 100
   A) 12
   B) 96
   C) 79
   D) 22
Range (Key)

Directions: Find the range of each set of numbers. Show your work.

1) 15, 10, 20
   Range: 10

2) 1, 3, 2, 1, 1, 6, 7
   Range: 6

3) 100, 85, 78, 92, 0
   Range: 100

4) 5, 7, 15, 3, 17
   Range: 14

5) Find the range of the following numbers.
   21, 67, 88, 22, 22, 4, 100

   A) 12
   B) 96
   C) 79
   D) 22
Mean, Median, Mode, and Range Review

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

1) 10, 0, 5, 15, 5
2) 8, 2, 6, 4

Mean: 
Median: 
Mode: 
Range: 

3) Compare and contrast the mode and the range.

4) Explain how we find the mean.
Mean, Median, Mode, and Range Review
(Key)

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

1) 10, 0, 5, 15, 5
   Mean: 7
   Median: 5
   Mode: 5
   Range: 15

2) 8, 2, 6, 4
   Mean: 5
   Median: 5
   Mode: No mode
   Range: 4

3) Compare and contrast the mode and the range.

   The mode and the range are both types of averages. They are different because the mode is the number that appears the most while the range is the difference between the largest number and the smallest number.

4) Explain how we find the mean.

   Add all of the numbers in the data set and divide by the number of addends.
Mean, Median, Mode, and Range Pre-Test

Directions: Describe the steps of finding each average.

1) Mean:

2) Median:

3) Mode:

4) Range:

Directions: Find the mean, median, mode, and range of the set of data below.

10, 2, 2, 1, 5
Mean, Median, Mode, and Range Pre-Test Key

Directions: Describe the steps of finding each average.

1) Mean: First, add all of the numbers in the set of data. Second, divide by the number of addends.

2) Median: First, list the numbers in order from least to greatest. Second, find the number that is in the middle.

3) Mode: Find the number that appears the most.

4) Range: Subtract the smallest number from the largest number.

Directions: Find the mean, median, mode, and range of the set of data below.

10, 2, 2, 1, 5

Mean: 4  Median: 2  Mode: 2  Range: 9
Mean, Median, Mode, and Range Post Test

Directions: Describe the steps of finding each average.

1) Mean:

2) Median:

3) Mode:

4) Range:

Directions: Find the mean, median, mode, and range of the set of data below.

1, 3, 2, 3, 6
Mean, Median, Mode, and Range Post Test Key

Directions: Describe the steps of finding each average.

1) Mean: First, add all of the numbers in the set of data. Second, divide by the number of addends.

2) Median: First, list the numbers in order from least to greatest. Second, find the number that is in the middle.

3) Mode: Find the number that appears the most.

4) Range: Subtract the smallest number from the largest number.

Directions: Find the mean, median, mode, and range of the set of data below.

1, 3, 2, 3, 6

Mean: 3  Median: 3  Mode: 3  Range: 5
A. The numbers '172' can be found on the back of the U.S. $5 dollar bill in the bushes at the base of the Lincoln Memorial. What is the range of the numbers 1, 7, and 2?

B. President Kennedy was the fastest random speaker in the world with upwards of 350 words per minute. What is the median of the numbers 3, 5, and 0?
C. The most common name in the world is Mohammed. If all of the names were in a data set, Mohammed would be the...

a) Mean  c) mode  
b) Median  d) range

D. The international telephone dialing code for Antarctica is 672. What is the mean of the numbers 6, 7, 2?
E. The smallest ten prime numbers are: 2, 3, 5, 7, 11, 13, 17, 19, 23 and 29. What is the range of this set of data?

F. Here is Pi written to 100 decimal places: 3.1415926535

Which number is the mode?
G. The number 5 is pronounced as 'Ha' in Thai language. 555 is also used by some as slang for 'HaHaHa.' Find the mean, median, mode, and range of the numbers 5, 5, 5, and 5?

H. Do you know there used to be a word in the dictionary (from 1932 to 1940), which did not have any meaning? The word was 'Dord'. It happened due to some error, this word was later known as Ghost word. What is the mode of the numbers 1, 9, 3, 2, 1, 9, 4, and 0?
Mean, Median, Mode, and Range
Recording Sheet

Directions: Record your response next to the letter that matches each task card.

A.  
B.  
C.  
D.  
E.  
F.  
G.  
H.
Mean, Median, Mode, and Range
Recording Sheet

Directions: Record your response next to the letter that matches each task card.

A. 6
B. 3
C. C, Mode
D. 5
E. 27
F. 5
G. Mean: 5, Median, 6, Mode 5, Range: 0
H. 9 and 1
I have...who has?

I have the first card in this series. Who has the type of average that subtracts the smallest number from the largest number?

I have the range. Who has the type of average that finds the number that appears the most?
I have the mode. Who has the type of average that adds all of the numbers and subtracts by the number of addends?

I have the mean. Who has the type of average that orders numbers from least to greatest and finds the number in the middle?
I have the median. Who has the vocabulary term for the numbers that are multiplied together?

I have factors. Who has the vocabulary term for the numbers that are added together?
I have addends. Who has the vocabulary term for what you get when you add?

I have the sum. Who has the vocabulary term for what you get when you divide?
I have the quotient. Who has the vocabulary term for what you get when you subtract?

I have the different. Who has the vocabulary term for what you get when you multiply?
I have the product. Who has the vocabulary term for the number that is being divided?

I have the dividend. Who has the vocabulary term for the number that is dividing?
I have the divisor. Who has the vocabulary term for the top number in a fraction?

I have the numerator. Who has the vocabulary term for the bottom number in a fraction?
I have the denominator. Who has the vocabulary term for what it is called when a fraction’s numerator and denominator’s GCF is 1?

I have the simplest form. Who has a key word that clues its reader to divide?
I have the word "shared". Who has a key word that clues its reader to multiply?

I have the word "times". Who has key words that clues its reader to subtract?
I have the words “fewer than”. Who has a key word that clues its reader to add?

I have the word “combined” and the last card in this series.
Suggested Enrichment or Remediation Activities

Activity 1:

Have students write a paragraph describing which character in the average family that they identify with the most or the character they identify with the least.

Activity 2:

Place students in 6 groups. Each group will draw a Venn diagram.
- Group 1: Have students compare and contrast the mean and mode.
- Group 2: Have students compare and contrast the mean and median.
- Group 3: Have students compare and contrast the mean and range.
- Group 4: Have students compare and contrast the mode and median.
- Group 5: Have students compare and contrast the mode and range.
- Group 6: Have students compare and contrast the median and range.
Suggested Enrichment or Remediation Activities

Activity 3:

In a small group, give students a deck of cards removing the Aces, Jacks, Queens, and Kings from the deck. Have the group draw 5 cards, and as a group find the mean, median, mode, and range.

Activity 4:

Place students in 4 groups. Each group will be assigned an average: Mean, median, mode, and range. Students will research each one and explain how each average is helpful in different situations. (You may also have advanced students complete this task and share findings with the rest of the class.)

Activity 5:

Either individually or in small groups, have students create a diagram showing the steps to find the mean, median, mode, and range. (You can even have students vote on the best poster to display on your wall.)
Thank you!

I really appreciate these quality freebies that allowed this product to be more polished.

For an assortment of free fonts and other goodies:

Fonts By J. Moriconi~
http://www.teacherspayteachers.com/Store/Kidsrcute

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