

Measures of Central Tendency 9.2



Overview of problems

Example Set: A

Find the mean, median, mode and range for each data set- show all work:

1. 3, 7, 9, 2, 3
2. 5, 1, 10, 1, 3, 2, 7
3. -6, 4, -2, 0, 1, 8
4. $\frac{1}{2}, \frac{2}{3}, \frac{1}{5}$
5. .3, -.09, 1.5, -2, .3

Example Set: B

Find the mean, median, mode and range for each data set (assume all x values are positive integers) - show all work:

1. $x, x, x + 1, x + 2$
2. $3x, 2x - 1, x, 5x + 1$
3. $x, x - 1, x - 2, x - 1, x - 1$
4. $x^2, x, x - 5, 3x^2$

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Overview of problems

Example Set: C

Find the values of the data set given the information- show all work:

1. Mean = 30 $x, x + 1, x + 8$
2. Range = 101 $2x, x, 5x + 9$
3. Mean = 5 $x, 2x, 3x, 4x$
4. A parking lot is full with 30 cars parked. The average cost of the cars is \$20,000. What conclusions can you make about the value of the other cars in the lot?

Example Set: A - **ANSWER KEY**

Find the mean, median, mode and range for each data set- show all work:

1. 3, 7, 9, 2, 3

mean: 4.8 median: 3 mode: 3 range: 7

2. 5, 1, 10, 1, 3, 2, 7

mean: 4.14 median: 3 mode: 1 range: 9

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3. $-6, 4, -2, 0, 1, 8$

mean: .83 median: .5 mode: none range: 14

4. $\frac{1}{2}, \frac{2}{3}, \frac{1}{5}$

mean: $\frac{41}{90}$ median: $\frac{1}{2}$ mode: none range: $\frac{7}{15}$

5. $.3, -.09, 1.5, -2, .3$

mean: .362 median: .3 mode: .3 range: 1.7



Example Set: B - ANSWER KEY

Find the mean, median, mode and range for each data set (assume all x values are positive integers) - show all work:

1. $x, x, x + 1, x + 2$

mean: $\frac{4x + 3}{4}$ median: $\frac{2x + 1}{2}$ mode: x range: 2

2. $3x, 2x - 1, x, 5x + 1$

mean: $\frac{11x}{4}$ median: $\frac{5x - 1}{2}$ mode: none range: $4x + 1$

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3. $x, x - 1, x - 2, x - 1, x - 1$

mean: $x - 1$ median: $x - 1$ mode: $x - 1$ range: 2

4. $x^2, x, x - 5, 3x^2$

mean: $\frac{4x^2 + 2x - 5}{4}$ median: $\frac{x + x^2}{2}$ mode: none range: $3x^2 - x + 5$



Example Set: C - ANSWER KEY

Find the values of the data set given the information- show all work:

1. Mean = 30 $x, x + 1, x + 8$

27, 28, 35

2. Range = 101 $2x, x, 5x + 9$

23, 46, 124

3. Mean = 5 $x, 2x, 3x, 4x$

2, 4, 6, 8

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Overview of problems

4. A parking lot is full with 30 cars parked. The average cost of the cars is \$20,000. What conclusions can you make about the value of the other cars in the lot?

The information is too little to draw any meaningful conclusions about the value of the other cars in the parking lot; see video solution for more details.