Name _____ Date _____

Mean, Median, and Range from Data Displays - Guided Lesson Explanation

Explanation #1

Let's first find the position within the data of where the median lies.

Median position = $\frac{\text{Number of element in set} + 1}{2}$

Step 3) $\frac{7+1}{2} = \frac{8}{2} = 4$

(This means the data at the 4th position numerically in order is the median.)

1 GB 1 GB 2 GB **3 GB** 4 GB 5GB 6 GB

Answer is: 3 GB

Explanation #2

Once again, let's focus on finding the position of the median first and then we can arrange the data and determine its value.

Median = $\frac{\text{Number of element in set} + 1}{2}$

Step 3) $\frac{5+1}{2} = \frac{6}{2} = 3$ (median is at the 3rd position in the data set)

Jack (3) Mike (4) **Gordon (5)** Paul (6) Alien (7)

The answer is: Gordon

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Explanation #3

The mean is just the average. We can find this by simply applying this formula:

$$\text{Mean} = \frac{\text{Sum of elements in set}}{\text{Number of element in set}}$$

$$\text{mean} = \frac{68}{4}$$

$$\frac{68}{4} = 17$$

The median is the middle value of the data set. We can find the position the median lies within the data set by using:

$$\text{Median} = \frac{\text{Number of element in set} + 1}{2}$$

$$\text{Median} = \frac{4+1}{2} = \frac{5}{2} = 2.5$$

(This indicates that the median lies between the average of the second and third position in the data set)

15 , **16 , 17** , 20

(If we take the average of those two positions, we will find the median)

$$\frac{16+17}{2} = \frac{33}{2} = 16.5$$

The range is the easiest one. Just subtract the smallest value from the largest value in the data set.

Range = 20 (high) - 15 (low) = 5