ALBERT

Name _____ Date _____

Data Distributions Worksheet

Grade 6 · Common Core 6.SP.A.2

> Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.

Practice

Builds the skill step by step.

1. Data: 3, 5, 5, 6, 8, 9, 13. What is the range?

2. Data: 2, 4, 4, 4, 7, 9. What is the mode?

3. Which three things describe the distribution of a data set?

   A. Mean, mode and title

   B. Smallest, largest and count

   C. Center, spread and shape

   D. Range, total and label

4. The table shows the hours of sleep reported by a class. How many students were surveyed?

Hours of sleep	Students
6	2
7	5
8	9
9	5
10	2

5. Using the same table, what amount of sleep is most common?

Hours of sleep	Students
6	2
7	5
8	9
9	5
10	2

6. Using the same table, how would you describe the shape of the data?

Hours of sleep	Students
6	2
7	5
8	9
9	5
10	2

A. Skewed to the right

B. Skewed to the left

C. Flat, with no peak

D. Symmetric, with a peak at 8 hours

7. Data: 12, 15, 15, 18, 20. What is the median?

8. Data: 4, 9, 1, 7, 3. Order the data and find the range.

9. A dot plot has most dots between 20 and 25, and a single dot at 60. What is the dot at 60 called?

   A. The mode

   B. The median

   C. A cluster

   D. An outlier

10. Data: 5, 5, 5, 5, 5. What is the range?

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On Level

Grade-level practice.

1. Quiz scores: 6, 7, 7, 8, 8, 8, 9, 10. Describe the center by giving the median.

2. Test scores: 55, 88, 90, 91, 92, 93, 95. How would you describe the shape?

   A. Skewed right

   B. Skewed left, with a long tail toward low scores

   C. Symmetric

   D. Uniform

3. Ages of people at a party: 9, 10, 10, 11, 11, 11, 12, 35, 38, 40. The ages form two clusters with a gap. Between which two ages is the gap?

4. Heights in inches: 52, 54, 55, 55, 57, 60. What are the range and the median?

5. Data set A: 10, 10, 11, 11, 12. Data set B: 2, 6, 11, 16, 20. Which statement is true?

   A. Both have the same spread.

   B. Both have a median of 11, but B is more spread out.

   C. A has a greater median.

   D. B has a smaller range.

6. Minutes spent reading: 15, 20, 20, 25, 30, 30, 30, 90. Which value is an outlier?

7. Number of siblings: 0, 1, 1, 1, 2, 2, 3, 6. Is the distribution skewed left, skewed right or symmetric?

8. Which question about a data set is answered by the spread?

   A. What is a typical value?

   B. What is the most common value?

   C. How much do the values vary?

   D. How many values are there?

9. Temperatures (°F): 68, 70, 71, 71, 72, 73, 75. What are the median and the range?

10. A data set has a median of 40 and a range of 0. What must all the values be?

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Challenge

Multi-step and word problems that stretch it.

1. Data: 3, 4, 4, 5, 5, 5, 6, 6, 7. Describe the center, spread and shape.

2. Add one value to 10, 12, 12, 14 so that the range becomes 10 and the median stays 12. What value could you add?

3. Two classes took the same test. Class A's scores range from 70 to 95. Class B's range from 82 to 88. Both medians are 85. Which is true?

   A. Class A's scores are more consistent.

   B. Class B's scores are more consistent.

   C. Class A did better overall.

   D. The classes have the same spread.

4. Wait times (minutes): 2, 3, 3, 4, 4, 4, 5, 25. How does the outlier affect the range? Find the range with and without it.

5. A data set of 5 values has a median of 8, a range of 10 and a least value of 5. What is the greatest value?

6. Is this data skewed left, skewed right or symmetric? 1, 8, 9, 9, 10, 10, 10

7. A student says, "The center of a data set tells you everything about it." Which response is best?

   A. That is correct; the median describes the whole set.

   B. Only the range matters.

   C. The shape is the same as the center.

   D. Two data sets can have the same center but very different spread and shape.

8. Data: 14, 15, 15, 16, 16, 16, 17, 17, 18. What is the median, and what is the mode?

9. Scores: 70, 72, 75, 75, 78, 80, 82, 85, 88, 95. A new student scores 40. Which changes more, the median or the range?

10. Which data set would you expect to be skewed right?

    A. Scores on an easy quiz

    B. The number of pets each student owns

    C. Heights of adult women

    D. The day of the month students were born