

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## **Box-and-Whisker Plots** Bell Work

**Solve problems involving Measures of Central tendency and Dispersion.**

1. Find the 3rd quartile for the following data: 9, 13, 13, 10, and 7

2. Find the 2nd quartile for the following data: 9, 13, 13, 10, and 7

3. Find the 1st quartile for the following data: 9, 13, 13, 10, and 7

The following are the scores of 9 students in stat quiz: 1, 2, 8, 7, 6, 11, 11, 11, 15.

4. Find the 2nd Quartiles.

5. Find the 1st Quartiles.

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## **Box-and-Whisker Plots** Bell Work

6. Find the 3rd quartile.

7. What is the difference between the 1st and 2nd quartile?

8. What is the difference between the 2nd and 3rd quartile?

9. Draw a box and whisker plot.

10. What do you observe about the data?

## Box-and-Whisker Plots Bell Work

Answer:

**Solve problems involving Measures of Central tendency and Dispersion.**

1. Find the 3rd quartile for the following data: 9, 13, 13, 10, and 7

Solution:

$$Q_3 = 3(5)/4 = 3.75 \text{ or } 4 \quad 7, 9, 10, \mathbf{13}, 13$$

**Quartile 3 is 13.**

2. Find the 2nd quartile for the following data: 9, 13, 13, 10, and 7

Solution:

$$Q_2 = 2(5)/4 = 2.5 \text{ or } 3 \quad 7, 9, \mathbf{10}, 13, 13$$

**Quartile 2 is 10.**

3. Find the 1st quartile for the following data: 9, 13, 13, 10, and 7

Solution:

$$Q_1 = 5/4 = 1.25 \text{ or } 1 \quad \mathbf{7}, 9, 10, 13, 13$$

**Quartile 1 is 7.**

The following are the scores of 9 students in stat quiz: 1, 2, 8, 7, 6, 11, 11, 11, 15.

4. Find the 2nd Quartiles.

$$Q_2 = 2(9)/4 = 4.5 \text{ or } 5 \quad 1, 2, 6, 7, \mathbf{8}, 11, 11, 11, 15$$

**The median is 8.**

5. Find the 1st Quartiles.

$$Q_1 = 9/4 = 2.25 \text{ or } 2 \quad 1, \mathbf{2}, 6, 7, 8, 11, 11, 11, 15$$

**The first quartile is 2.**

6. Find the 3rd quartile.

$$Q_3 = 3(9)/4 = 6.75 \text{ or } 7 \quad 1, 2, 6, 7, 8, 11, \mathbf{11}, 11, 15$$

**The third quartile is 11.**

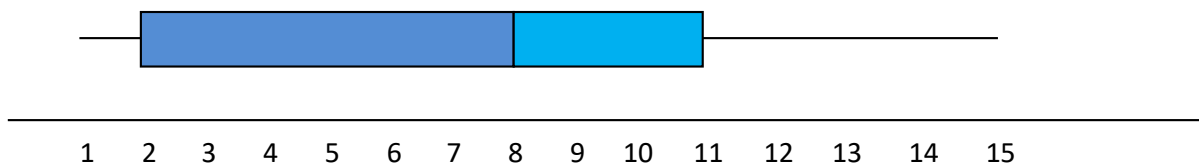
7. What is the difference between the 1st and 2nd quartile?

$$Q_2 = 8 \text{ and } Q_1 = 2; \mathbf{8-2=6}$$

8. What is the difference between the 2nd and 3rd quartile?

$$Q_3 = 11 \text{ and } Q_2 = 8; \mathbf{11-8=3}$$

9. Draw a box and whisker plot.



10. What do you observe about the data?

**The distribution of data is more aligned to the left than the right, it means that there are scores that have a very extreme value to the left.**