Name Reynolds Date _____ Class _____

# Statistics

## PRACTICE Test

mode = 54.5
median = 54.25

**Choose the best answer.**

**Use the data set for 1 and 2.**

**53, 53.5, 57, 54, 54.5, 47, 55, 54.5**

1. Find the median and mode(s) of the data set.

47, 53, 53.5, 54, 54.5, 54.5, 55, 57

2. What are the mean and median of this data set without the value 47?

53, 53.5, 54, 54.5, 54.5, 55, 57

both 54.5

**Use this data set for 3 and 4.**

**21, 15, 10, 16, 11, 19**

3. Find the interquartile range.

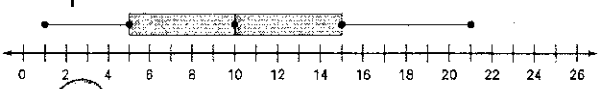
15.5

10, 11, 15, 16, 19, 21

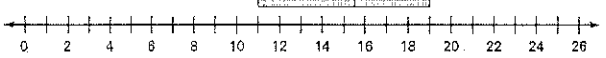
19 − 11 = 8 = IQR

4. Which is the correct box-and-whisker plot for the data set?

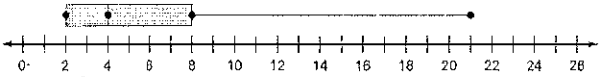
F



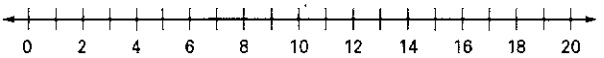

G




H




J

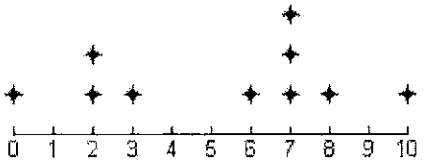



5. Find the range for this data set.

2, 3, 1, 5, 4

5 − 1 = 4

6. Which data set does the line plot represent?




F 2, 3, 8, 10, 7, 6, 2, 7, 0, 7

G 2, ~~7, 8, 10, 7, 6, 2, 7,~~ 0, 7

H 2, ~~3, 8, 2, 7, 6, 2, 7, 0, 7~~

J 2, ~~3, 8, 10, 7, 6, 2, 7, 7~~, 7

7. The data set and dot plot display the approximate heights of several buildings in meters. What is a correct description of the distribution?

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 11 | 6 | 4 | 8 | 7 | 5 | 5 | 7 |
| 5 | 6 | 7 | 6 | 15 | 8 | 4 | 6 |

A The data is skewed; the measures of center are varied.

B ~~The data is~~ skewed; the measures of center are equal.

C The data is normal; the measures of center are varied.

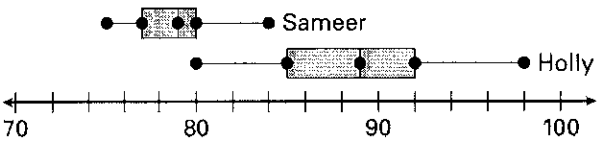
D The data is normal; the measures of center are equal.

Name _____ Date _____ Class _____

# Statistics

8. The box-and-whisker plots show the distribution of test scores for two students for a semester. What conclusion can you make about the data?

**Sameer and Holly's Test Scores**




F Overall, Sameer had better scores than Holly, and Sameer was more consistent in his scores.

G Overall, Sameer had better scores than Holly, and Holly was more consistent in her scores.

H Overall, Holly had better scores than Sameer, and Sameer was more consistent in his scores.

J Overall, Holly had better scores than Sameer, and Holly was more consistent in her scores.

**Use the data below for 9–10.**

**Number in Attendance**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ~~26~~ | ~~46~~ | ~~3~~ | 56 | 53 | 72 | ~~6~~ | ~~12~~ | ~~9~~ | ~~41~~ |

9. Find the mean, median and mode of the data.

3, 6, 9, 12, 26, 41, 46, 53, 56, 72

median 33.5

no mode

26 + 41 = 67.0 ÷ 2 = 33.5

mean $\frac{324}{10} = 32.4$

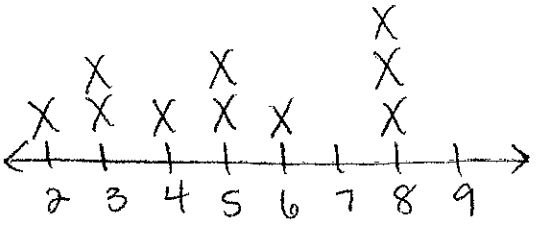
10. How does the addition of the value 86 to the data set affect the median and the mode?

no mode to change

median would go from 33.5 to 41 an increase

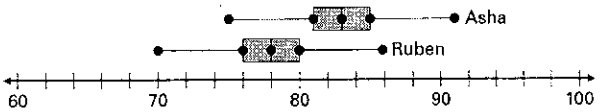
11. Make a line plot for the following data.

6, 8, 4, 5, 3, 8, 2, 8, 5, 3




12. The box-and-whisker plots show the distribution of test scores for two students for a semester. What conclusion can you make about the data?

**Asha and Ruben's Test Scores**




Range and IQR are about the same in both, so same consistency. Asha usually scores higher than Ruben and has a higher median.

13. The Johnson High School basketball team's last seven scores were as follows: 45, 29, 27, 35, 39, 48, and 23. Find the range, mean, median, and mode of the scores.

23, 27, 29, 35, 39, 45, 48

- median 35
- range 48 - 23 = 25
- mean $\frac{246}{7} = 35.14$
- no mode

I would always say mean is best for describing data unless there is an outlier or overwhelming mode

Name _____ Date _____ Class _____

14. The local college has 7 classes of English 101. The average final exam scores for each class are listed. What are the mean, median, and mode of the data set? Which measure of central tendency best describes the data set?

75, 72, 87, 75, 92, 98, 86

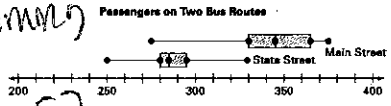
72, 75, 75, 86, 87, 92, 98

median = 86

mode = 75

mean $\frac{585}{7} \approx 83.6$

15. The box-and-whisker plots show the distribution of passengers on two bus routes each day for a month. What conclusion can you make about the data?




F Overall, more people rode the Main Street bus route, and the Main Street route had more variation.

G Overall, more people rode the Main Street bus route, and the State Street route had more variation.

H Overall, more people rode the State Street bus route, and the Main Street route had more variation.

J Overall, more people rode the State Street bus route, and the State Street route had more variation.

**Use this data set for 16 and 17.**

**14, 4, 7, 3, 12, 6, 15, 9, 11**

IQR

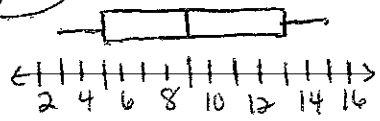
16. Find the interquartile range.

3, 4, 6, 7, 9, 11, 12, 14, 15

5 13

13 − 5 = 8

17. Draw a box-and-whisker plot for the data set.




18. Make a stem and leaf plot for the data set. 33, 28, 32, 37, 44, 22, 30, 46, 44, 59, 20

| Stem | Leaves |
|---|---|
| 2 | 0 2 8 |
| 3 | 0 2 3 7 |
| 4 | 4 4 6 |
| 5 | 9 |



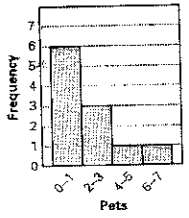
Name _____ Date _____ Class _____

Andie asked her friends how many pets they each had in their family. Her results are shown below.
4, 2, 1, 1, 0, 2, 7, 3, 1, 0, 0

19. Make a frequency table

| Pets | 0-1 | 2-3 | 4-5 | 6-7 |
|---|---|---|---|---|
| Frequency | 6 | 3 | 1 | 1 |

20. Make a histogram to display the data




21. Julia kept track of how many miles she walked each week for 10 weeks. If she wants to average 8 miles a week, how many miles must she walk this week?

8, 7, 11, 12, 3, 14, 5, 7, 7, ___

$\frac{8+7+11+12+3+14+5+7+7+[\ ]}{10}$

$\frac{\square}{10} = 8$

So Julia would need the total miles walked to be 80

80 minus what she walked already, leaves 6 miles left

6