

Quiz 4 Review—Central Tendency

Name: _____

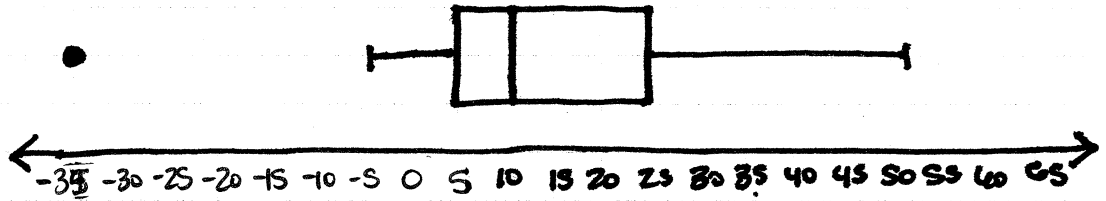
ISBN pages 21-28

Vocabulary—Use your notes to find the exact answer that fits each blank.

1. The fifth number in the five number summary is maximum.
2. An equal number of values are larger than and smaller than this measure of central tendency, median.
3. The third number in the five number summary is median.
4. The first quartile means that 25% of data points lie below Q_1 and that 75% of data points lie above Q_1 .
5. The third quartile means that 75% of data points lie below Q_3 and that 25% of data points lie above Q_3 .
6. A method of computing a kind of arithmetic mean of a set of numbers in which some elements of the set carry more importance than others is called weighted average.
7. The first number in the five number summary is minimum.
8. The central tendency that defined as the average of the set of data is called the mean.
9. The mode is the central tendency that appears most often in a set of data.
10. The second number in the five number summary is Q_1 (first quartile).
11. A box + whisker plots is a graphical depiction of groups of numerical data through their quartiles.
12. The interquartile range (IQR) is the difference between the first and third quartiles.
13. Any data point that is more than 1.5 times the IQR above the third quartile, or 1.5 times the IQR below the first quartile is considered an outlier.
14. The fourth number in the five number summary is Q_3 (third quartile).
15. Standard Deviation is defined as the average distance of the data points from the mean.
16. Spread tells how far apart the data points are in a distribution.
17. The midpoint of the data distribution is the Center.
18. An Outlier is clearly separated from the main body of observations.
19. A histogram's shape is right skewed if the tail or the curve is on the right.

35.

- ① -34
- ② 5
- ③ 11.5
- ④ 25
- ⑤ 52



IQR: 20

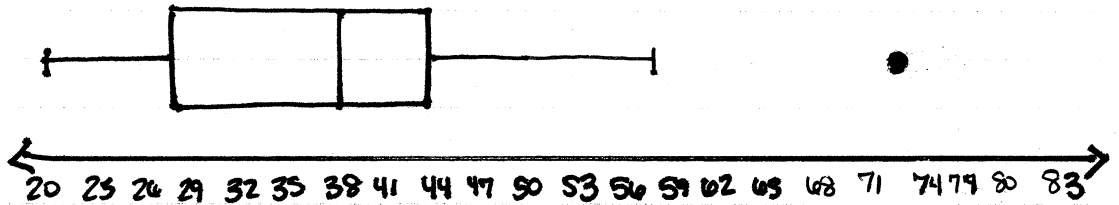
Outliers:

$$5 - 1.5(20) = -25 \quad \boxed{-34}$$

$$25 + 1.5(20) = 55 \quad \boxed{\text{none}}$$

36.

- ① 20
- ② 28.5
- ③ 38.5
- ④ 44
- ⑤ 73



IQR: 15.5

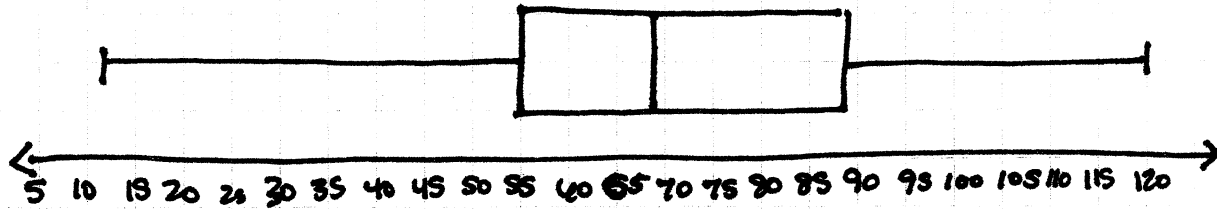
Outliers:

$$28.5 - 1.5(15.5) = 5.25 \quad \boxed{\text{none}}$$

$$38.5 + 1.5(15.5) = 61.75 \quad \boxed{73}$$

37.

- ① 12
- ② 55
- ③ 69
- ④ 89
- ⑤ 120



IQR: 34

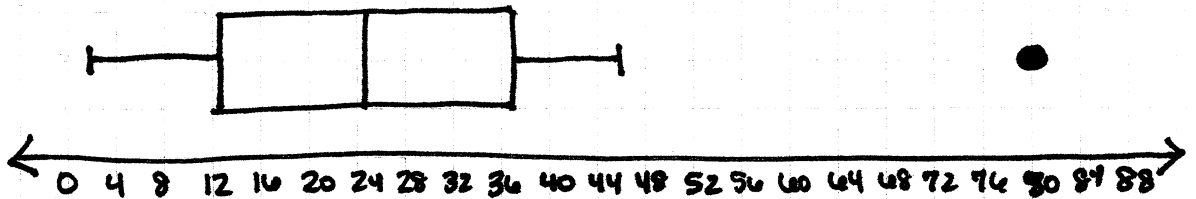
Outliers:

$$55 - 1.5(34) = 4 \quad \boxed{\text{none}}$$

$$89 + 1.5(34) = 140 \quad \boxed{\text{none}}$$

38.

- ① 2
- ② 13
- ③ 23
- ④ 37
- ⑤ 80



IQR: 24

Outlier:

$$13 - 24(1.5) = -23 \quad \boxed{\text{none}}$$

$$37 + 1.5(24) = 73 \quad \boxed{80}$$