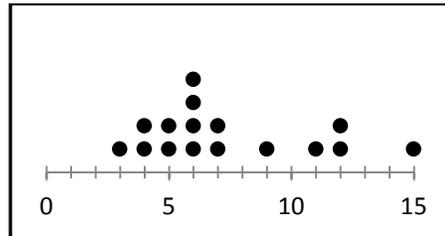


1. For each of the following data sets, use your calculator to help find the interquartile range and the population standard deviation. Show your calculation for the IQR. Round all non-integer values to the nearest *tenth*.

- (a) 4, 6, 8, 10, 15, 19, 22, 25 (b) 3, 3, 4, 5, 5, 6, 6, 7, 7, 8

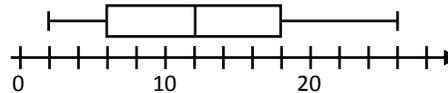
2. For the data set shown in the dot plot below, which of the following is closest to its population standard deviation?

- (1) 2.7 (3) 3.3
(2) 4.2 (4) 5.8



3. What is the interquartile range of the data set represented in the box plot shown below?

- (1) 24 (3) 8
(2) 14 (4) 12



4. Which of the following best measures the average distance that a data value lies away from the mean?

- (1) mean (2) standard deviation (3) median (4) range

5. Which of the following data sets would have the largest standard deviation?

- (1) {3, 3, 4, 5, 5} (2) {72, 73, 74, 75, 76} (3) {2, 8, 18, 26, 35} (4) {8, 10, 12, 14, 16}

R1. What are the solutions to the equation $(x + 2)^2 = 5$ in radical form?

R2. How many real solutions are there to the equation $x^2 + 3 = 0$? Explain your answer.

R3. What is the axis of symmetry of the function $y = -(x - 3)^2 + 2$?

R4. Where does the graph of $y = (x - 2)(x + 4)$ intersect the x-axis?

R5. Factor: $x^2 - 2x - 48$

R6. What is the product of $(2x^2 - 3)$ and $(x + 5)$?

1. a. IQR = 13.5, SD = 7.3
b. IQR = 3, SD = 1.6

2. (3)
3. (4)
4. (2)
5. (3)

- R1. $-2 \pm \sqrt{5}$
R2. None, the graph never crosses the x-axis
R3. $x = 3$
R4. -8
R5. $(x + 6)(x - 8)$
R6. $2x^3 + 10x^2 - 3x - 15$