

# Answer Key

Name \_\_\_\_\_  
Teacher \_\_\_\_\_

Date \_\_\_\_\_

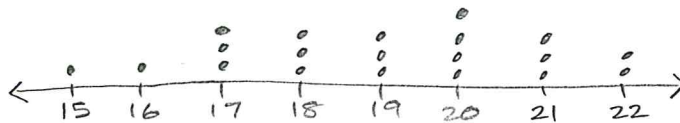
## 6th Grade Math (Statistics) Enrichment #9 (Lesson 29-3)

### Ready:

1. The data set for hand span (to the nearest half centimeter) of students in Matthew's class is shown below.

15, 16, 17, 17, 17, 18, 18, 18, 19, 19, 19, 20, 20, 20, 20, 21, 21, 21, 22, 22  
18, 17, 15, 18, 21, 17, 19, 19, 18, 22  
22, 20, 21, 20, ~~18.5~~ 17, 20, 16, 20, 21, 19

Create a dot plot for the hand span of student's in Matthew's class.



2. Compute the mean, median and range.

$$\text{mean} = \frac{380}{20} = 19$$

$$\text{median} = 19$$

$$\text{range} = 7$$

lower quartile: 17.5

upper quartile: 20.5

3. Compute the MAD (mean absolute deviation) and IQR (interquartile range).

$$\text{MAD} = \frac{32}{20} = 1.6$$

$$\text{IQR} = 20.5 - 17.5 = 3$$

### Set:

4. The sales tax rate is 10%. If Maggie buys a map of Africa priced at \$17, how much will her total bill be?

$$\begin{aligned} \text{Cost} &= 17 + 17(0.1) \\ &= 17 + 1.70 = \$18.70 \end{aligned}$$

5. A store pays \$91 for a gold ring and marks the price up by 20%. What is the new price of the ring?

$$\begin{aligned} \text{Markup} &= 91 + 91(0.2) \\ &= 91 + 18.2 \\ &= \$109.20 \end{aligned}$$

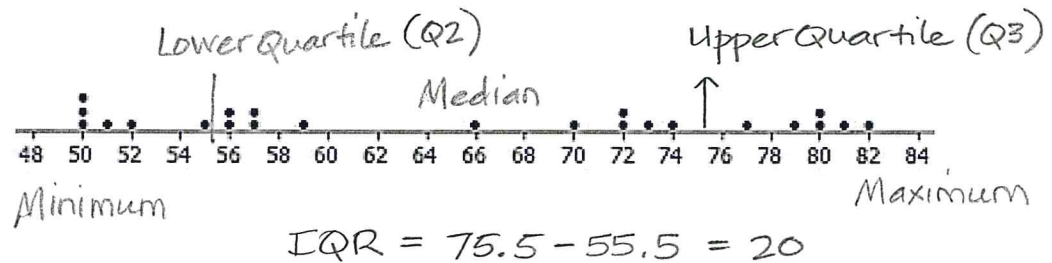
6. Kenny ordered a set of green and red pins. He received a total of 20 pins, and 70% of them were green. How many green pins did Kenny receive? How many red pins?

$$\begin{aligned} \text{green} &= 20(70\%) \\ &= 20(0.7) \\ &= 14 \end{aligned} \quad \begin{aligned} \text{red} &= 20 - 14 \\ &= 6 \end{aligned}$$

**Go:**

7. On the graph below, insert the following words in approximately the correct position.

Maximum    Minimum    IQR    Median    Lower Quartile (Q1)    Upper Quartile (Q3)



8. Estimate the IQR based on the data set above.

$$IQR = 75.5 - 55.5 = 20$$

9. What does the value of the IQR tell you about the data that you are examining?

The value of the IQR is 20 which means that 50% of the data falls between 55.5 and 75.5. The middle portion of the data is spread out quite a bit.