

Center #1 – Display the data in a dot plot. Identify any clusters, peaks or gaps in the data.

1.	Distance (feet)				2.	Weight (pounds)				
	56	55	56	57		83	88	89	90	89
	58	54	51	55		91	89	84	90	92
	51	56	49	56		90	88	89	83	88

Center #2 – Find and interpret the mean absolute deviation of the data. Round your answer to the nearest tenth if necessary.

Shoe Sizes				
6	8.5	6	9	
10	7	8	9.5	

Center #3 – Find the mean, median, mode, and range of the data.

1)      8, 8, 6, 8, 2, 4, 6

2)      24, 74, 61, 29, 38, 27, 68, 54

Center #4 – Find the Interquartile Range of the data and describe any that are outliers.

1) 28, 46, 25, 75, 18, 25, 47, 113, 44

2) 14, 25, 97, 55, 66, 52, 72, 52, 74, 98

Center #5 - Find and interpret the mean absolute deviation of the data. Round your answer to the nearest tenth if necessary.

Prices of Monitors (dollars)				
130	150	190	100	175
120	165	140	180	190

Center #6

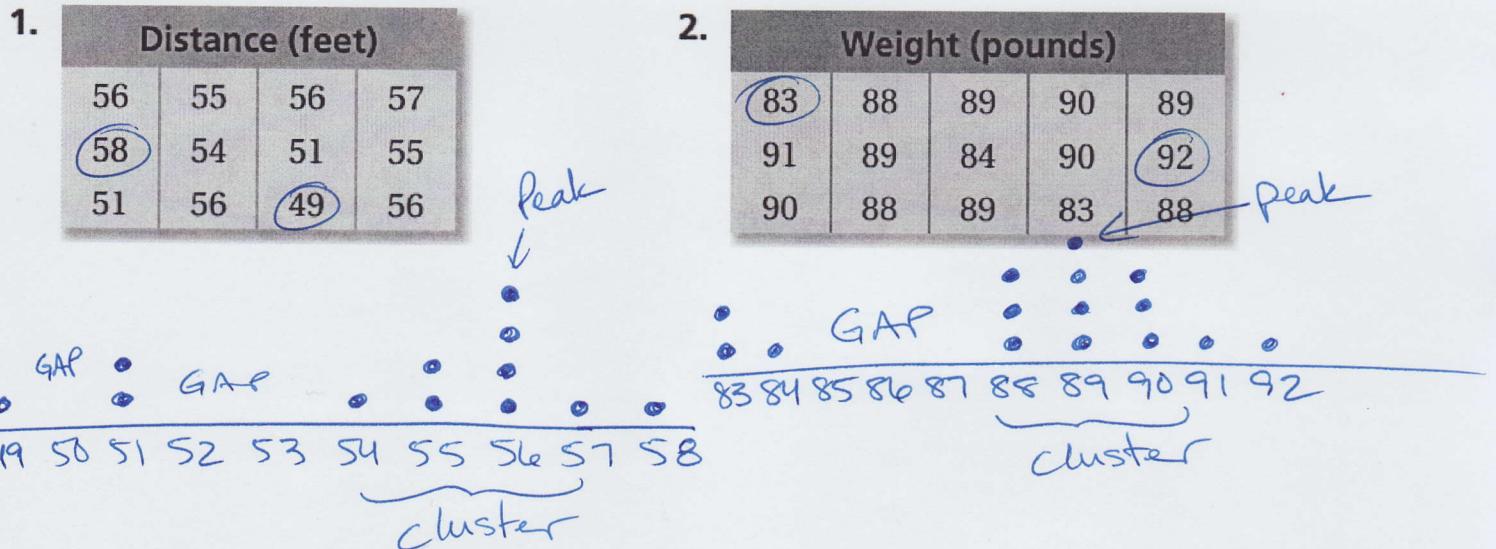
Johnny and Barry are at the batting cages and hitting groups of 10 balls. Here's how many they hit each time.

Johnny – 3, 2, 5, 7, 3

Barry – 8, 3, 9, 8, 2

Find the mean absolute deviation to find out who was more consistent.

Center #1 – Display the data in a dot plot. Identify any clusters, peaks or gaps in the data.



Center #2 – Find and interpret the mean absolute deviation of the data. Round your answer to the nearest tenth if necessary.

Shoe Sizes							
6	+ 8.5	+ 6	+ 9				
10	+ 7	+ 8	+ 9.5				

$$= 64 \div 8 = 8$$

Deviation     $\frac{8}{6} \frac{8.5}{8} \frac{8}{6} \frac{9}{8} \frac{10}{8} \frac{8}{7} \frac{8}{8} \frac{9.5}{8}$   
 $2 + 0.5 + 2 + 1 + 2 + 1 + 0 + 1.5 = 10 \div 8 = 1\frac{1}{4}$  or  $1.25$   
 ↓  
 The shoe sizes differ from the mean size by 1.3

Center #3 – Find the mean, median, and mode of the data.

$$1) \quad 8, 8, 6, 8, 2, 4, 6 = 42 \div 7 = \frac{\text{Mean}}{6} \quad 2) \quad 24, 74, 61, 29, 38, 27, 68, 54 = 375 \div 8$$

$2, 4, 6, \underline{8}, 8, 8$   
 ↑  
 Median

Mode: 8

$$\text{Range: } 8 - 2 = 6$$

$46 \frac{7}{8}$  or  $46.875$   
 Mean  
 $24, 27, 29, \underline{38, 54}, 61, 68, 74$

$$38 + 54 = 92 \div 2 = 46$$

Mode: None

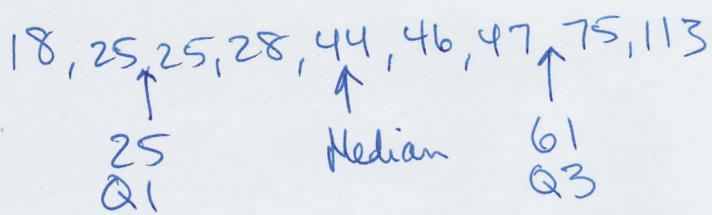
Median

$$\text{Range: } 74 - 24 = 50$$

Center #4 – Find the Interquartile Range of the data and describe any that are outliers.

1) 28, 46, 25, 75, 18, 25, 47, 113, 44

2) 14, 25, 97, 55, 66, 52, 72, 52, 74, 98

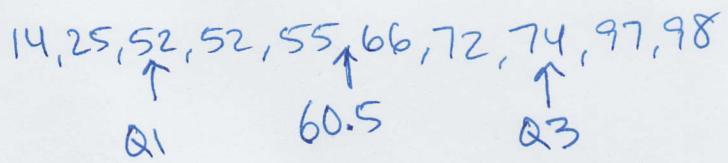


IQR:  $61 - 25 = 36$

$36 \times 1.5 = 54$

~~25 - 54 =~~  
No outlier

$61 + 54 = 115$   
No outlier



IQR:  $74 - 52 = 22$

$22 \times 1.5 = 33$

$52 - 33 = 19$        $74 + 33 = 107$

14 is an outlier

Center #5 - Find and interpret the mean absolute deviation of the data. Round your answer to the nearest tenth if necessary.

Prices of Monitors (dollars)				
130	150	190	100	175
120	165	140	180	190

$$\begin{array}{r} 154 \\ 154 \\ 130 - 150 \\ \hline -154 \end{array} \quad \begin{array}{r} 154 \\ 190 \\ 154 \\ \hline -154 \end{array} \quad \begin{array}{r} 154 \\ 100 \\ 175 \\ 154 \\ \hline 154 \end{array} \quad \begin{array}{r} 154 \\ 120 \\ 165 \\ 154 \\ \hline 154 \end{array} \quad \begin{array}{r} 154 \\ 140 \\ 180 \\ 154 \\ \hline 154 \end{array} \quad \begin{array}{r} 154 \\ 190 \\ 154 \\ \hline 154 \end{array} = 1540 \div 10$$

$$24 + 4 + 36 + 54 + 21 + 34 + 11 + 14 + 26 + 36 = 154$$

The prices differ from the mean price by an average of \$26.

Center #6

Johnny and Barry are at the batting cages and hitting groups of 10 balls. Here's how many they hit each time.

Johnny – 3, 2, 5, 7, 3

Barry – 8, 3, 9, 8, 2

Find the mean absolute deviation to find out who was more consistent.

$$\begin{array}{r} 4 \ 4 \\ 3 + 2 + 5 + 7 + 3 = 20 \div 5 = 4 \\ 4 \ 4 \end{array}$$

$$\begin{array}{r} 8 + 5 + 9 + 8 + 2 = 30 \div 5 = 6 \\ 6 \ 6 \ 6 \ 6 \end{array}$$

$$1 \ 2 \ 1 \ 3 \ 1 = 8 \div 5 = 1.6$$

$$2 \ 3 \ 3 \ 2 \ 4 = 14 \div 5 = 2.8$$

Johnny was more consistent. He differed from the mean on average by 1.6 but Barry differed on average by 2.8.