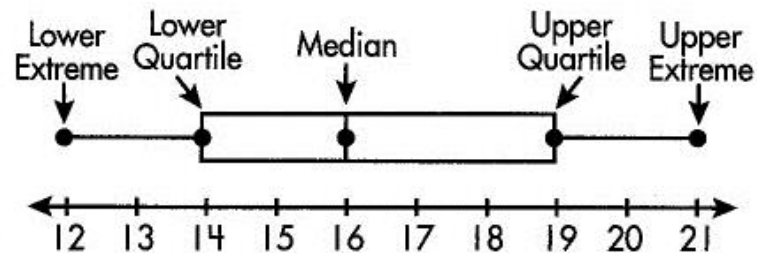


Box & Whiskers Plots

Box-and-Whisker Plots

A **box-and-whisker** plot displays data along a number line. Quartiles are used to divide the data into four equal parts. Each quartile is 25% of the number of items. The upper and lower quartiles, representing 50% of the data, form the box. The upper extreme (highest value) and lower extreme (lowest value) form the whiskers.

This box-and-whisker plot represents the following data:
12, 13, 14, 14, 15, 16, 17, 18, 19, 19, 21



Upper Extreme:

Upper Quartile (median of upper half):

Lower Extreme:

Lower Quartile (median of lower half):

Middle Quartile (median):

Use the box-and-whisker plots below to answer the following questions.

1. What is the median number of miles walked? _____

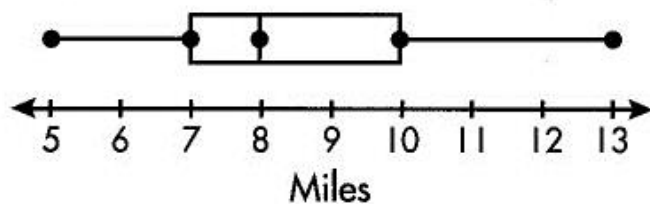
2. What are the lowest and highest numbers of miles walked?

lowest: _____ highest: _____

3. If 126 people participated in the walkathon, how many people walked 7–10 miles? _____

4. What percentage of the people walked more than 10 miles? _____

Miles Walked in Walk-a-Thon



5. What is the median number of books read? _____

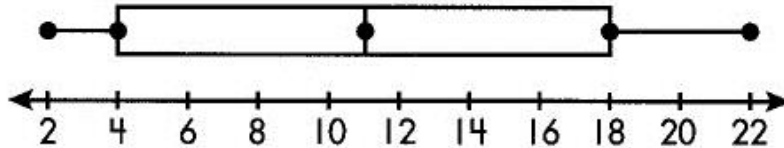
6. What is the upper quartile? _____

7. What percentage of the people who responded to the survey read 4 or fewer books? _____

8. What is the most number of books anyone read? _____

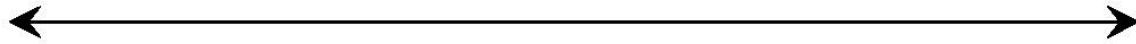
9. If 82 people responded to this survey, how many read from 4 to 18 books? _____

Books Read Over the Summer



Draw a box and whiskers plot for the following problems:

1) 2, 3, 6, 7, 6, 4, 8



2) 3, 7, 2, 10, 12, 5



3) 23, 27, 34, 40, 42, 45, 52, 56, 62, 68, 83, 90



4) 71, 50, 66, 71, 65, 60, 70, 71, 68, 57, 71, 53, 85, 71

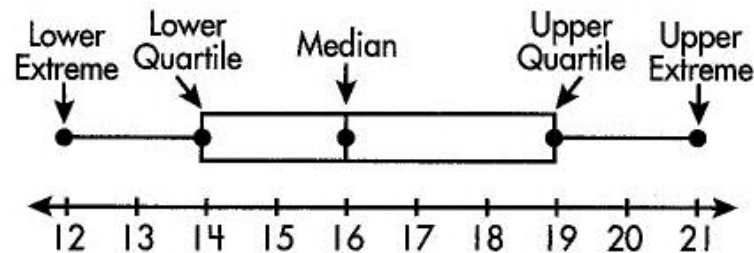


Box & Whiskers Plots

Box-and-Whisker Plots

A **box-and-whisker** plot displays data along a number line. Quartiles are used to divide the data into four equal parts. Each quartile is 25% of the number of items. The upper and lower quartiles, representing 50% of the data, form the box. The upper extreme (highest value) and lower extreme (lowest value) form the whiskers.

This box-and-whisker plot represents the following data:
12, 13, 14, 14, 15, 16, 17, 18, 19, 19, 21



Upper Extreme: **21**

Lower Extreme: **12**

Middle Quartile (median): **16**

Upper Quartile (median of upper half): **19**

Lower Quartile (median of lower half): **14**

Use the box-and-whisker plots below to answer the following questions.

1. What is the median number of miles walked? 18

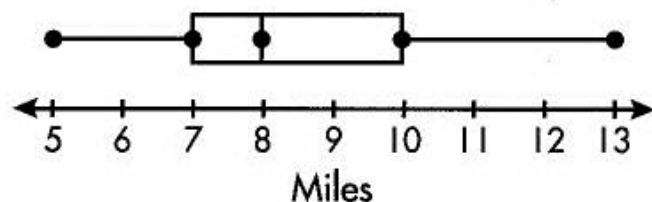
2. What are the lowest and highest numbers of miles walked?

lowest: 5 highest: 13

3. If 126 people participated in the walkathon, how many people walked 7–10 miles? 53

4. What percentage of the people walked more than 10 miles? 25%

Miles Walked in Walk-a-Thon



5. What is the median number of books read? 11

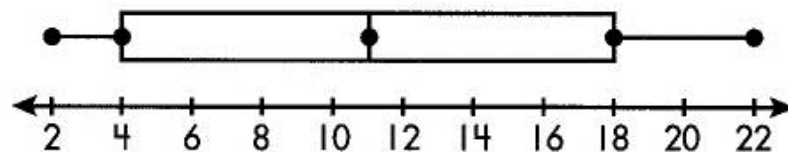
6. What is the upper quartile? 18

7. What percentage of the people who responded to the survey read 4 or fewer books? 25%

8. What is the most number of books anyone read? 22

9. If 82 people responded to this survey, how many read from 4 to 18 books? 41

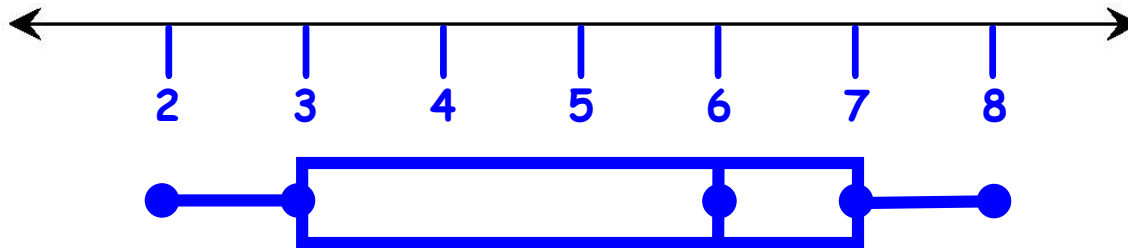
Books Read Over the Summer



Draw a box and whiskers plot for the following problems:

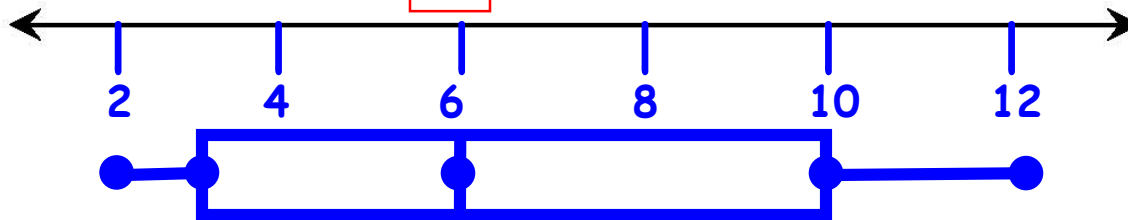
1) 2, 3, 6, 7, 6, 4, 8

2, (3), 4, [6], 6, (7), 8



2) 3, 7, 2, 10, 12, 5

2, (3), [5, 7], (10), 12
6

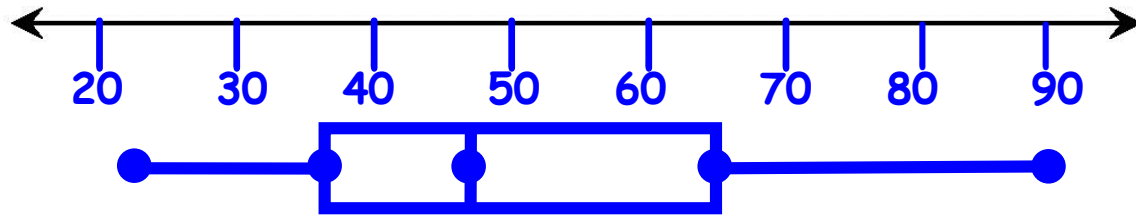


3) 23, 27, 34, 40, 42, 45, 52, 56, 62, 68, 83, 90

3) 23, 27, 34, 40, 42, 45, 52, 56, 62, 68, 83, 90

23, 27, 34, 40, 42, 45, 52, 56, 62, 68, 83, 90

37 48.5 65



4) 71, 50, 66, 71, 65, 60, 70, 71, 68, 57, 71, 53, 85, 71

50, 53, 57, 60, 65, 66, 68, 70, 71, 71, 71, 71, 85

69

