


GUIDED PRACTICE

Personal Math Trainer 

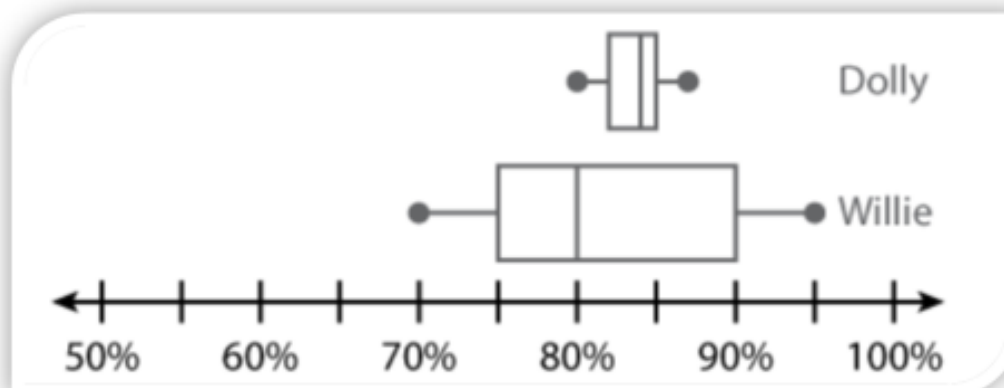
9.3 Histograms and Box Plots - Class & Homework



HELP

1

Dolly and Willie's scores are shown. Dolly claims that she is the better student, but Willie claims that he is the better student. What statistics make either Dolly or Willie seem like the better student? Drag and drop the correct word into each box to complete the explanation.



The **median** and **IQR** make Dolly seem like the better student. Dolly has a higher **median** than Willie. She also has the smaller **IQR**, which means that her scores are more consistent.

The **third quartile** and **maximum** make Willie seem like the better student. Willie's **third quartile** is greater than Dolly's **maximum**, which means that the greatest 25% of his scores are all higher than Dolly's highest score.

2

Select the box plot that describes the data listed below.

The numbers of goals Arsenal's soccer team scored in 21 games are shown below.

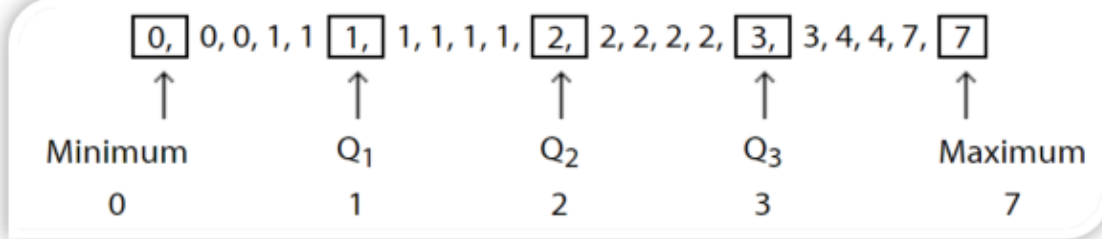
0, 7, 4, 3, 3, 2, 1, 1, 7, 2, 2, 1, 1, 1, 2, 2, 0, 1, 0, 1, 4

Order the data from least to greatest.

0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 3, 3, 4, 4, 7, 7

Identify the 5 needed values

(minimum, first quartile, median, third quartile, and maximum.)



Draw a number line and plot a point above each of the 5 needed values. Draw a box whose ends go through the first and third quartiles, and draw a vertical line through the median. Draw horizontal lines from the box to the minimum and maximum.



3

Select the box plot that describes the data listed below.

The numbers of field goals James' football team scored in 12 games are listed below.

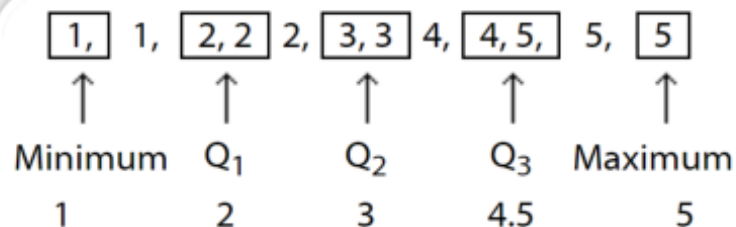
3, 2, 5, 3, 5, 2, 1, 1, 5, 4, 4, 2

Order the data from least to greatest.

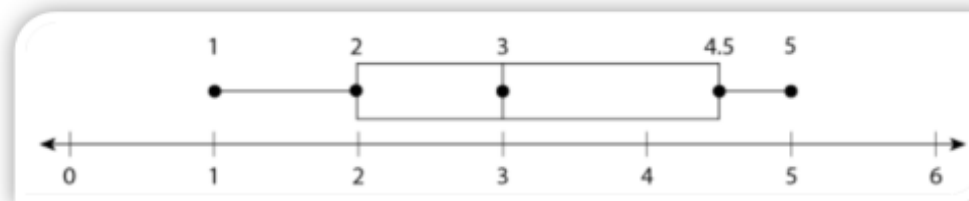
1, 1, 2, 2, 2, 3, 3, 4, 4, 5, 5, 5

Identify the 5 needed values

(minimum, first quartile, median, third quartile, and maximum)



Draw a number line and plot a point above each of the 5 needed values. Draw a box whose ends go through the first and third quartiles, and draw a vertical line through the median. Draw horizontal lines from the box to the minimum and maximum.



4

Select the box plot that describes the data listed below.

The numbers of baskets Natalia's team scored in 9 games are listed below.

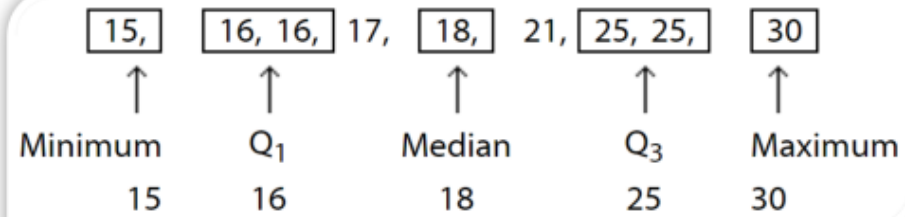
15, 25, 30, 16, 18, 21, 25, 16, 17

Order the data from least to greatest.

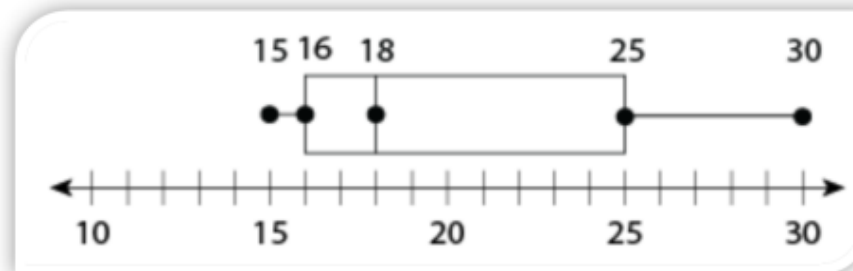
15, 16, 16, 17, 18, 21, 25, 25, 30

Identify the 5 needed values

{minimum, first quartile, median, third quartile, and maximum.}



Draw a number line and plot a point above each of the 5 needed values. Draw a box whose ends go through the first and third quartiles, and draw a vertical line through the median. Draw horizontal lines from the box to the minimum and maximum.



5

Select the box plot that describes the data listed below.

The numbers of points Armando's basketball team scored in 11 games are listed below.

55, 61, 38, 34, 33, 45, 45, 36, 38, 42, 36

Order the data from least to greatest.

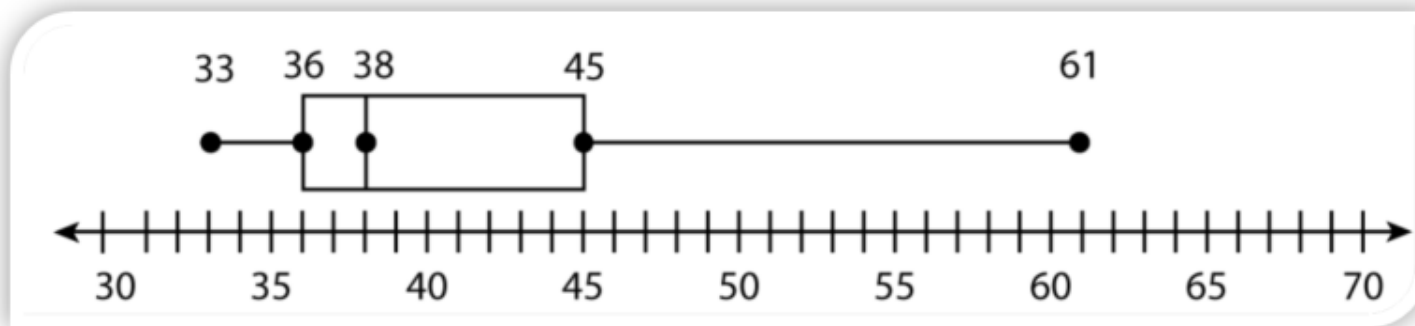
33, 34, 36, 36, 38, 38, 42, 45, 45, 55, 61

Identify the 5 needed values:

{minimum, first quartile, median, third quartile, and maximum.}

33	34	36	36, 38,	38	42, 45	45	55,	61
↑		↑		↑		↑		↑
Minimum		Q ₁		Q ₂		Q ₃		Maximum
33		36		38		45		61

Draw a number line and plot a point above each of the 5 needed values. Draw a box whose ends go through the first and third quartiles, and draw a vertical line through the median. Draw horizontal lines from the box to the minimum and maximum.



6

Select the histogram that describes the given data.

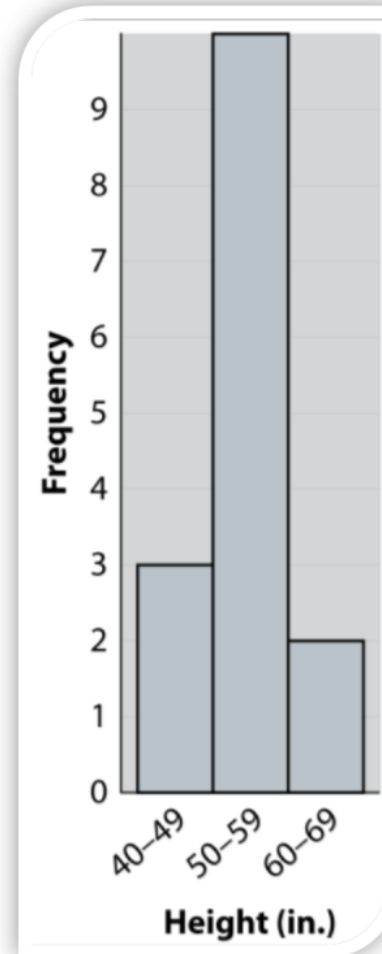
Listed are the heights, in inches, of the students in Ethan's karate class.

41, 47, 49, 51, 52, 53, 53, 55, 55, 55, 56, 57, 58, 67, 68

Create a frequency table. The data values range from 44 to 68, so use an interval width of 10 and start the first interval at 40

Age Interval	Frequency
41-49	3
50-59	10
60-69	2

Select the histogram that describes the given data.



7

Select the histogram that describes the given data.

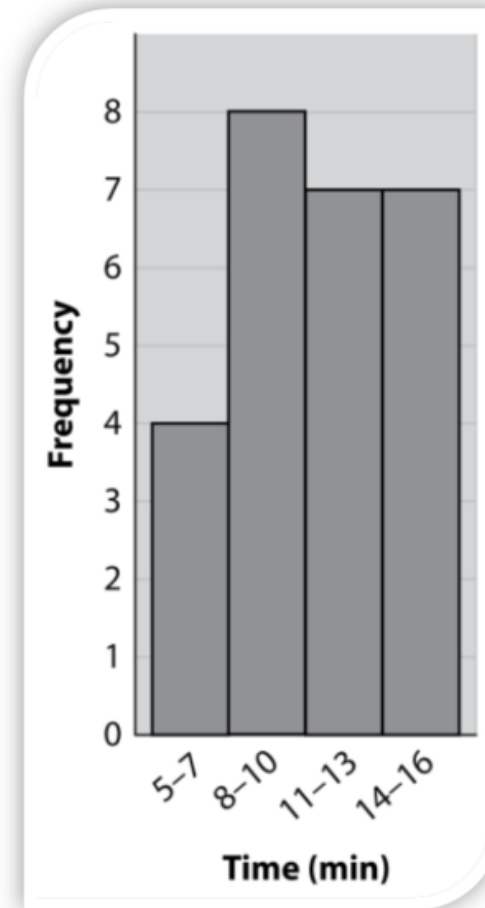
Listed are the breathing intervals in minutes of orca whales

8, 5, 13, 6, 14, 9, 16, 8, 7, 10, 10, 9, 13, 16, 11, 13, 15, 13, 11, 14, 14, 12, 16, 8, 6, 9

Create a frequency table. The data values range from 5 to 16 so use an interval width of 3 and start the first interval at 5.

Age Interval	Frequency
5-7	4
8-10	8
11-13	7
14-16	7

Select the histogram that describes the given data.



8

Select the box plot that describes the data listed below.

The numbers of goals scored by Lisa's soccer team in 13 games are listed below.

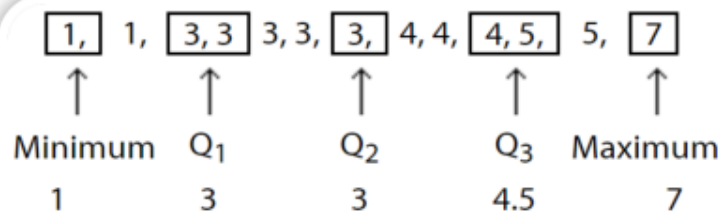
3, 4, 5, 1, 1, 4, 5, 3, 7, 3, 3, 4, 3

Order the data from least to greatest.

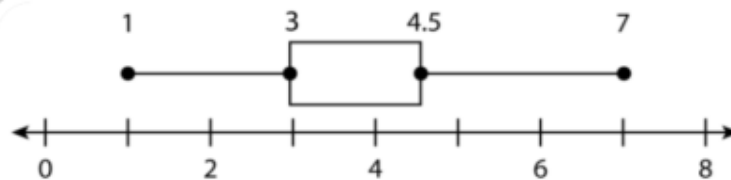
1, 1, 3, 3, 3, 3, 3, 4, 4, 4, 5, 5, 7

Identify the 5 needed values

(minimum, first quartile, median, third quartile, and maximum.)



Draw a number line and plot a point above each of the 5 needed values. Draw a box whose ends go through the first and third quartiles, and draw a vertical line through the median. Draw horizontal lines from the box to the minimum and maximum.



9

Select the box plot that describes the data listed below.

25, 26, 16, 20, 15, 25, 28, 26, 16

Order the data from least to greatest.

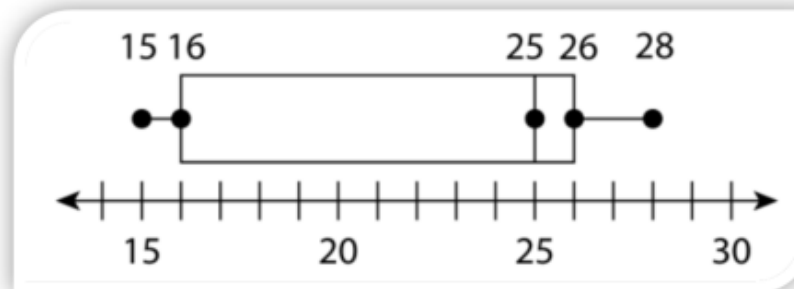
15, 16, 16, 20, 25, 25, 26, 26, 27, 28

Identify the 5 needed values

(minimum, first quartile, median, third quartile, and maximum.)

15,	16,	16,	20,	25, 25,	26,	26,	27,	28,
↑		↑		↑		↑		↑
Minimum		Q ₁		Q ₂		Q ₃		Maximum
15		16		25		26		28

Draw a number line and plot a point above each of the 5 needed values. Draw a box whose ends go through the first and third quartiles, and draw a vertical line through the median. Draw horizontal lines from the box to the minimum and maximum.



10 Listed are the heights of players, in inches, on a basketball team. Complete the frequency table from the data.

80, 76, 71, 67, 63, 78, 71, 74, 70, 65, 73, 70, 74, 72, 70

Height Interval	Frequency
63-66	<input type="text"/>
67-70	<input type="text"/>
71-74	<input type="text"/>
75-78	<input type="text"/>
79-82	<input type="text"/>

