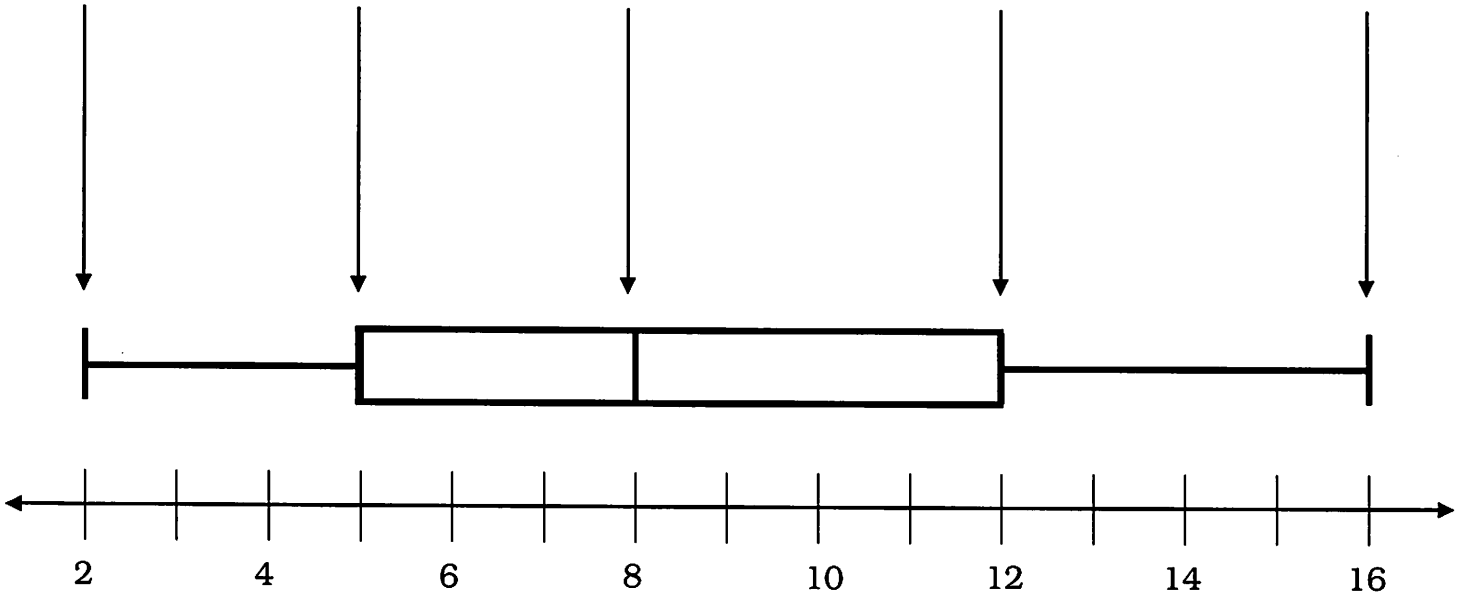
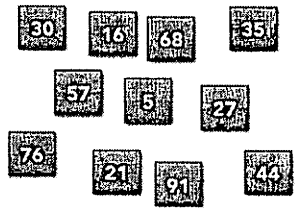
Box-and-Whisker Plots

A box-and-whisker plot is a graph that summarizes a data set along a number line. The **Five Number Summary** will help us construct the box-and-whisker plot.



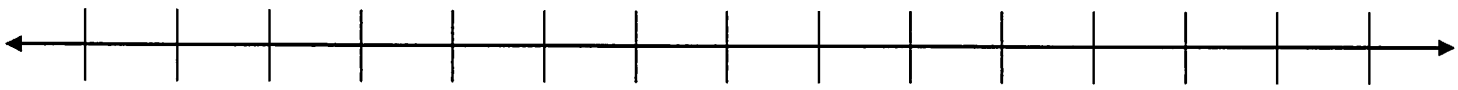
Example

Order the data set. Then label the five boundary values.



Plot the Data on a Box and Whisker Plot!

A: 1, 3, 5, 7, 7, 9, 10, 12, 17



Examples:

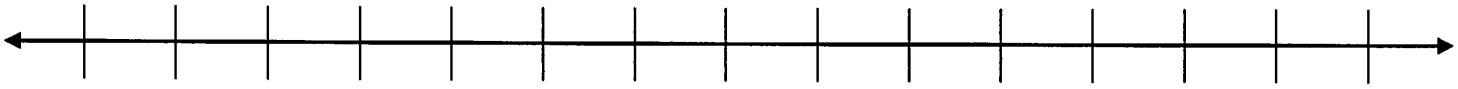
1. Terri waitressed 10 days out of the last two weeks. The amount of money she earned each day in tips are listed below. Create a box-whisker-plot.

$32, $58, $17, $27, $69, $73, $42, $38, $24, $52

Got It?

An athletic trainer recorded how many miles 11 people could run in 30 minutes. Make a box plot of the results.

2.5, 4.4, 2.1, 2.3, 4.5, 1.3, 2.2, 5.0, 4.7, 2.7, 3.3



The **I**nter-**Q**uartile **R**ange (IQR) is _____

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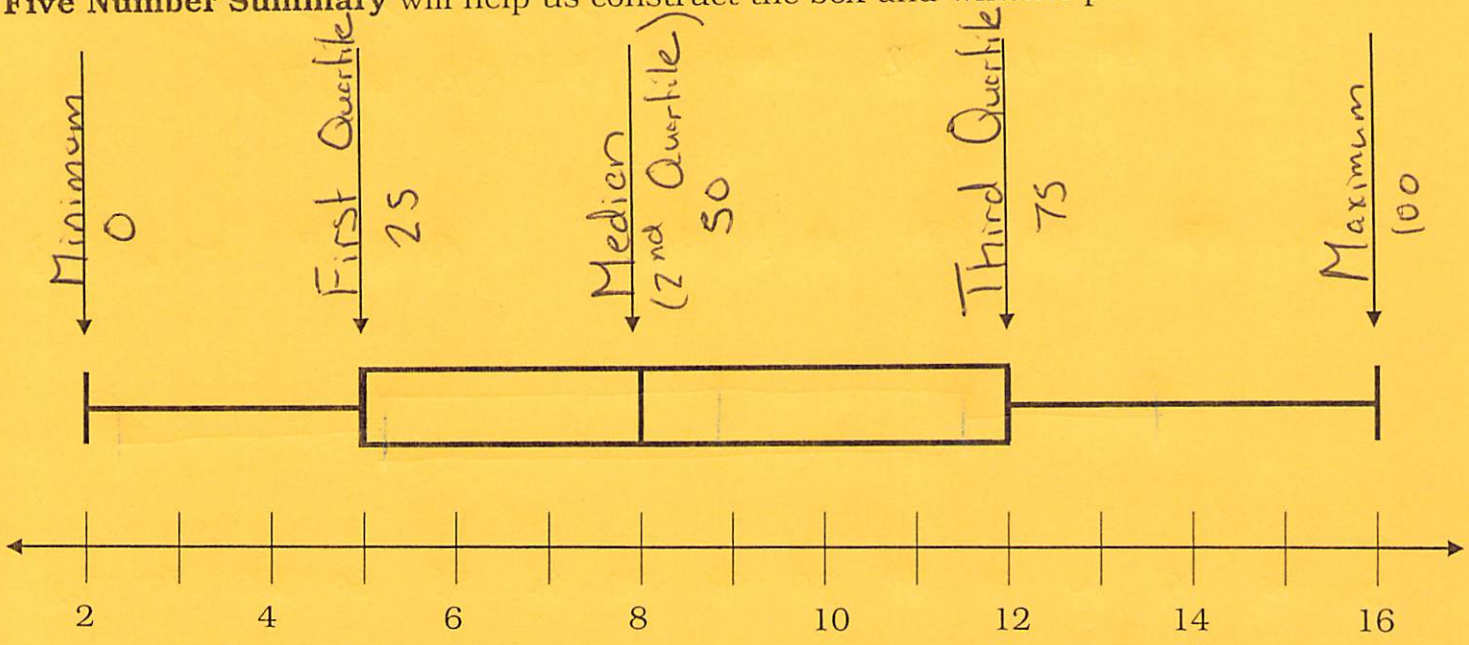


Example

Order the data set. Then label the five boundary values.

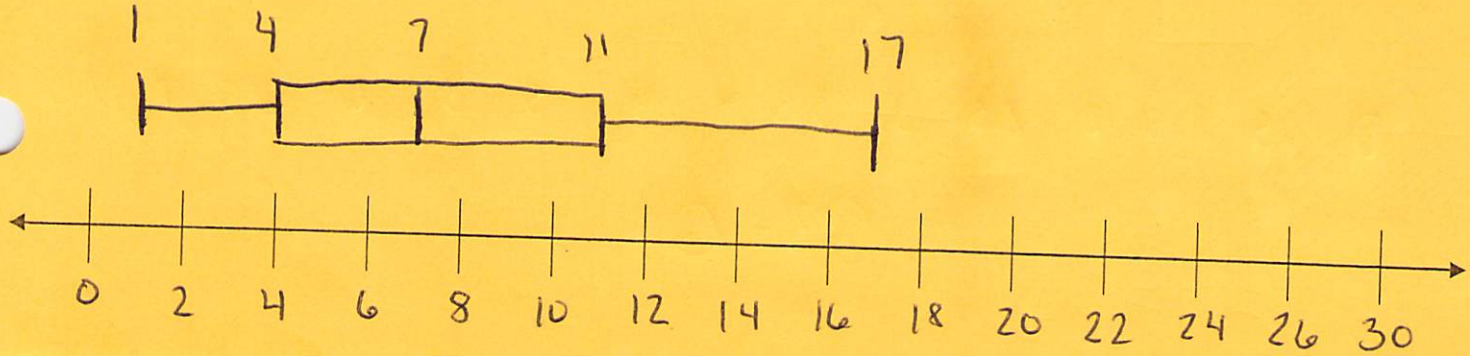
Min 5 | 16 | 21 (Q1) | 27 | 30 | 35 (Median) | 44 | 57 | 68 (Q3) | 76 | 91 Max

Plot the Data on a Box and Whisker Plot!

A: 1, 3, | 5, 7, 7, 9, 10, | 12, 17

Q1 Q3

Min: 1
Q1: 4
Median: 7
Q3: 11
Max: 17



Examples:

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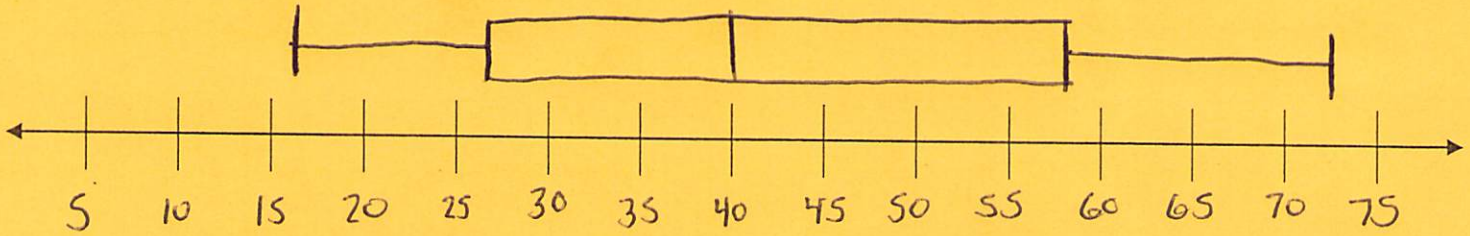
~~$32~~, $58, ~~$17~~, ~~$27~~, $69, $73, ~~$42~~, ~~$38~~, ~~$24~~, ~~$52~~

17, 24, (27), 38, 38 | 42, 52, (58), 69, 73

Min: 17 Q1: 27 Med: 40 Q3: 58 Max: 73



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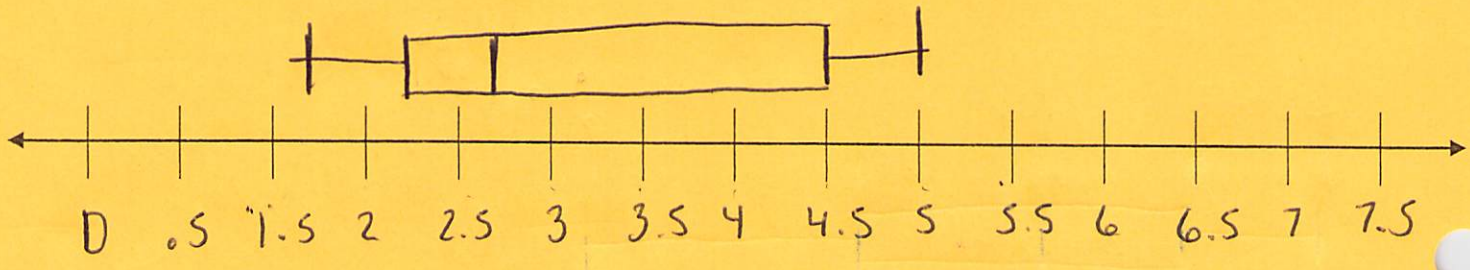
~~2.5~~, ~~4.4~~, ~~2.1~~, ~~2.3~~, ~~4.5~~, ~~1.3~~, ~~2.2~~, ~~5.0~~, ~~4.7~~, ~~2.7~~, ~~3.3~~

1.3, 2.1, (2.2), 2.3, 2.5, 2.7, 3.3, 4.4, 4.5, 4.7, 5.0

Min 1.3 Q1: 2.2 Median = 2.7 Q3: 4.5 Max 5.0



The **I**nter-**Q**uartile **R**ange (IQR) is Q3 - Q1