Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Where’s Waldo?**

Source: Georgia Standards of Excellence Framework – Grade 6 Mathematics – Unit 6

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjGzNuxu7PTAhUb3YMKHUjrCsEQjRwIBw&url=http://scarletts-letters.thoughts.com/posts/--364893&psig=AFQjCNF0gx66LWzQYvvamNxntbX22kosQw&ust=1492792298048435)**Part One: How fast can you find Waldo?**

We will collect data to answer this question by following the steps below.

1. Get a partner.
2. Decide who will be the “searcher” and who will be the

“timer” first. Both partners will get a chance to be the “searcher.”

1. You will get a copy of “Where’s Waldo?” picture side down.

Do not touch or turn the paper over until you are told!

1. When the teacher says “GO”, the searcher is to turn the paper over and find Waldo as quickly as possible. The timer will time how long it takes for their partner to find and point to Waldo. SEARCHER, DO NOT SHOW THE WHERE’S WALDO PICTURE TO YOUR PARTNER (that will give away the answer to your partner!)
2. Record your own (or your partner’s) time to the nearest second in the space below.

Partner 1 time in seconds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

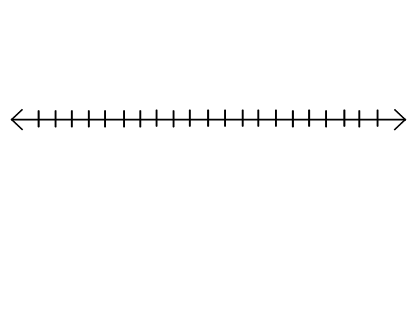
Partner 2 time in seconds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Using the data collected from each group fill in the chart below for our class data.

List the data in numerical order from least to greatest: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| Identify the minimum (least) number of seconds |  |
| Identify the maximum (most) number of seconds |  |
| Find the median of the data set (Q2) |  |
| Find the Lower Quartile (Q1) |  |
| Find the Upper Quartile (Q3) |  |

7.) Create a box plot using the data in the chart. (21 tick marks)

[](http://www.clipartkid.com/number-line-blank-10-to-10-downloads-2161-recommended-1-u5zEM1-clipart/)

8.) What is the attribute being measured in this task?

\*\*Attribute is the characteristic or feature being investigated.

9.) What unit is being used to measure this attribute and why?

10.) Describe the spread of the data for the box plot and explain what this tells you about the data.

11.) Do you think if we did the same experiment with 30 other random people, we would come up with the same conclusion? Why or why not?

**Part Two: A Closer Look at Box Plots**

Below is a data set of the length of time, in seconds, that it took for nine boys to find Waldo:

7 8 13 20 11 12 13 8 10

1.) Write the numbers in numerical order and circle the median.

2.) About what percent of the values in the data set are above the median? Below the median? How do you know this?

4.) Find the Upper and Lower Quartiles of this data set. Draw a small vertical line where the lower quartile and upper quartile are on the list of numbers above.

5.) Complete the Five Number Summary and create a box plot to represent this data below.

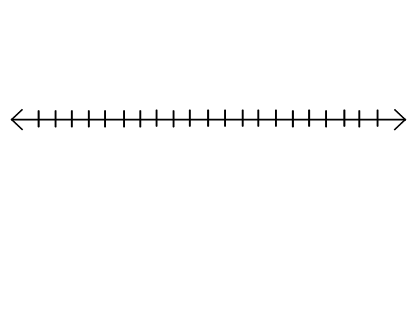
Minimum: \_\_\_\_\_

Lower Quartile: \_\_\_\_\_

Median: \_\_\_\_\_

Upper Quartile: \_\_\_\_\_

Maximum: \_\_\_\_\_

[](http://www.clipartkid.com/number-line-blank-10-to-10-downloads-2161-recommended-1-u5zEM1-clipart/)

6.) About what percent of the data distribution are in each quartile?

7.) About what percent of the values fall ABOVE the lower quartile?

8.) About what percent of the values fall BELOW the upper quartile?

9.) The Inter-Quartile Range (IQR) is the size of the “box” of the box plot. The box contains all data between Q1 and Q3. What percent of the data fall between the upper quartile and the lower quartile?

10.) Find the IQR using the values given above.

11.) Why is the IQR important when using it to describe the data?