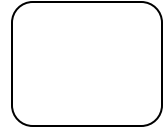


Stopping Distances Analysis



Name: _____

Date: _____

An automobile manufacturing company tested their new compact car. They recorded the stopping distance, in metres, from a speed of 100 km/h. The recorded distances are listed below.



95, 99, 99, 98, 99, 101, 102, 102, 101, 101, 103, 105
100, 100, 100, 98, 97, 100

Your Task:

1. Create a histogram of this data and identify the type of distribution. Copy and paste the graph into a document (include a title, an introduction and a header)
2. Also include the box whisker plot graph.
3. In the document as a table report the mean, median, mode, variance, standard deviation, percent spread and the IQR.

Follow Up Questions:

Answer the following questions; be sure to use proper notation and record all of your information in the document. You can use a z-score table or you can use technology to find these percentages.

4. What **percentage of stopping distances** were :
 - a) Greater than 100m $P(X > 100)$
 - b) Between 92m and 102m $P(92 < X < 102)$
 - c) Less than 98m $P(X < 94)$
 - d) Between 98m and 106m
 - e) Greater than 96m
 - f) Between 94m and 100m
 - g) Between 94m and 102m.
 - h) Greater than 106m.

Your report must be one page and correctly formatted before you share it with your teacher.