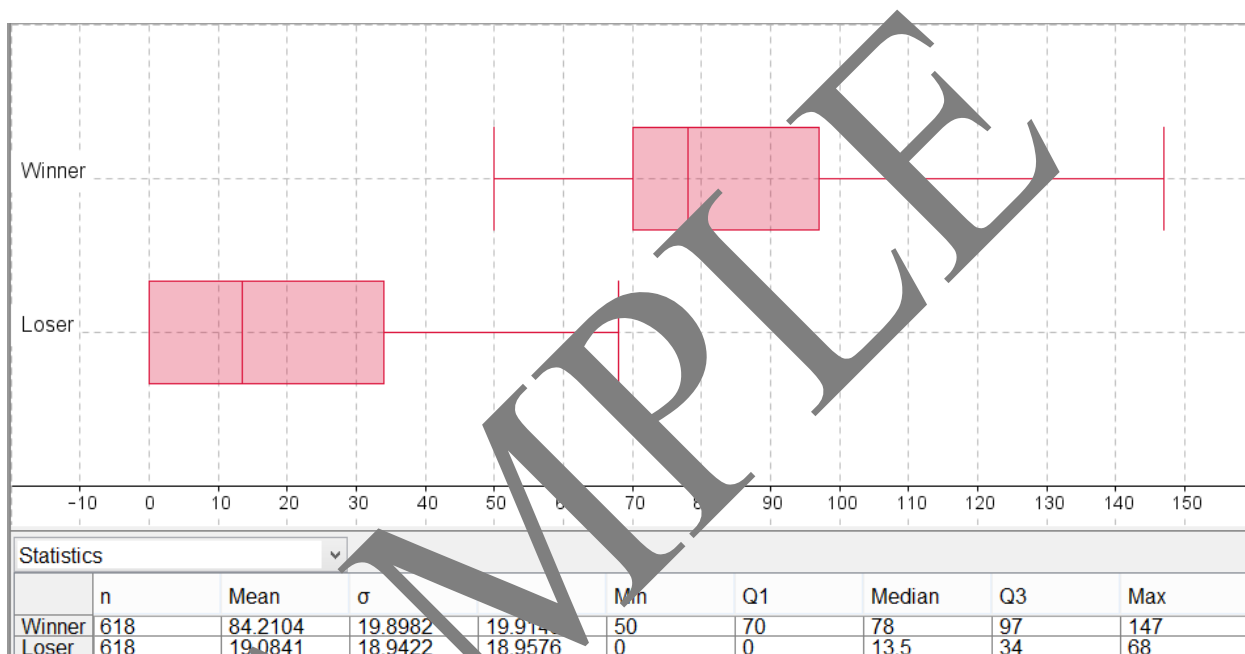


Data processing, presentation and interpretation

Section 2 – Discrete and Continuous Data

Exercise Level 2

1. In the 2016 World Snooker Championships 618 frames of snooker were played. The full results are available through the following link <http://www.bbc.co.uk/sport/snooker/36043537>. In every frame there were two players, and the player with the higher score was the winner (drawing a frame is impossible). The players pot balls and score points for the balls they pot. The score of the winner and loser in every frame was collected and the results are displayed in the diagram below:



- (a) By referring to the range, inter-quartile range, and standard deviation, write three comments comparing the spread of these data sets.
- (b) Which measure of centre, the mean, median or midrange would you suggest was the most representative of the winner's scores.
- (c) Give a brief overview of the winner's and loser's scores.
- (d) What was the modal score of the loser? Of the winner? Or is it impossible to say exactly?
- (e) An outlier is a value 1.5 IQR's above the UQ or below the LQ. Are there any outliers in either data set?
- (f) The data is combined into a single data set of 1236 snooker scores. Can you work out, exactly or approximately, the lower quartile of the combined data set? What about the mean? The median?

Often in snooker a frame is conceded by the loser before all the balls are potted and all the possible points are scored.

- (g) If the rules were changed to stop players conceding, what effects might you expect on the winning and losing scores?