

Solutions

2.1 $\text{IQR} = Q_3 - Q_1 = 21 - 12 = 9$.

2.2 The median position is half the total cumulative frequency: $80/2 = 40$.

2.3 The lower outlier fence is $12 - 1.5 \times 9 = -1.5$.

3.1 False. A five-number summary 1,3,5,8,12 has IQR $8 - 3 = 5$ and range $12 - 1 = 11$.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.