Grade 6 Men's Shoe Sizes – Training Set 1 Annotations

**T1-1 Score 0**

Part A: The student provided an incorrect answer (*9.5*) with an incorrect explanation (*the middle of the shoe size for the 40 men had 2 numbers so …. I add the numbers and divide by 2*) that does not explain that the median in a box-and-whisker plot is the line inside the box. [0 points]

Part B: The student did not provide an answer for number of men with shoe sizes in each interval with an incorrect explanation that does not explain that each quartile is 25% of the total number of men. There is insufficient evidence that the student understands how to correctly interpret a box-and-whisker plot. [0 points]

**T1-2 Score 4**

Part A: The student provided the correct answer (*10.5, or 10* $\frac{1}{2}$) with a correct and complete explanation (*the median in a box-and-whisker is represented by the middle line in the box*).[2 points]

Part B: The student provided the correct answer (*There are 10 men with the shoe sizes in each section*) with a correct and complete explanation (*each section represents* $\frac{1}{4}$ *….Because each section is equal to* $\frac{1}{4}$ *, the number of men with sizes 6 to 9 is equal to the number of men with sizes 11*$\frac{1}{2} to 13$*…*$\frac{1}{4}$ *× 40 = 10 men in each section*). [2 points]

**T1-3 Score 3**

Part A: The student provided the correct answer (*10.5*) with a correct but incomplete explanation (*Between the lower extreme and the lower quartile is 25% of the chart. So between the lower extreme and the median is 50% of the* *chart*. *So the median on the chart is the middle line and it is pointing down to 10.5*). The student does not clearly define the line as the one in the box. [1.5 points]

Part B: The student provided the correct answer (*10 men*) with a correct and complete explanation (*each interval they have the same number of men*…*each interval was 25% of the 40 men…40 times 0.25).* [2 points]

**T1-4 Score 1**

Part A: The student provided the correct answer (*10* $\frac{1}{2}$), however no explanation is provided. [1 point]

Part B: The student did not provide an answer for number of men with shoe sizes in each interval with an incorrect explanation that does not explain that each quartile is 25% of the total number of men. [0 points]

**T1-5 Score 2**

Part A: The student provided the correct answer (*10.5*) with a correct and complete explanation *(the line in the middle of the rectangle shows the median*). [2 points]

Part B: The student did not provide an answer for number of men with shoe sizes in each interval with an incorrect explanation that does not explain that each quartile is 25% of the total number of men. [0 points]

**T1-6 Score 1**

Part A: The student provided the correct answer (*ten and* $\frac{1}{2}$) with an incorrect explanation (*because I looked at the box and whisker plot*) that does not explain that the median in a box-and-whisker plot is the line inside the box. [1 point]

Part B: The student provided an incorrect answer (*it is 10*$\frac{1}{2}$) without an explanation. [0 points]

**T1-7 Score 4**

Part A: The student provided the correct answer (*10.5*) with a correct and complete explanation (*the center line of the box*)*.* [2 points]

Part B: The student provided the correct answer (*There are 10 men with shoe sizes*)with a correct and complete explanation (*The box and whisker plot is divided into 4 equal sections. 40 ÷ 4 is 10, so there are 10 men in each section)*. [2 points]

**T1-8 Score 2**

Part A: The student provided the correct answer (*10* $\frac{1}{2}$) with a correct and complete explanation (*the line in the middle of the rectangular box*). [2 points]

Part B: The student did not provide an answer for number of men with shoe sizes in each interval with an incorrect explanation (*It shows their shoe sizes and not how many men for each*) that does not explain that each quartile is 25% of the total number of men. The student has perhaps confused the number of shoe sizes instead of the number of men. [0 points]

**T1-9 Score 3**

Part A: The student provided the correct answer (*10* $\frac{1}{2}$) with a correct, but incomplete explanation (*middle of the data*). This explanation does not indicate the location is the line inside the box. [1.5 points]

Part B: The student provided the correct answer (*10 men*) with a correct and complete explanation *(all parts are worth 25%...40 ÷ 4 = 10 men in each interval*). [2 points]

**T1-10 Score 1**

Part A: The student provided the correct answer (*10* $\frac{1}{2}$) with an incorrect explanation (*in the middle of 10 and 11*) that does not explain that the median in a box-and-whisker plot is the line inside the box. [1 point]

Part B: The student does not provide an answer for number of men with shoe sizes in each interval with an incorrect explanation that does not explain that each quartile is 25% of the total number of men. [0 points]