PSSA, Grade 6 Math

Men's Shoe Sizes

Handscoring
Training Set 2

Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.
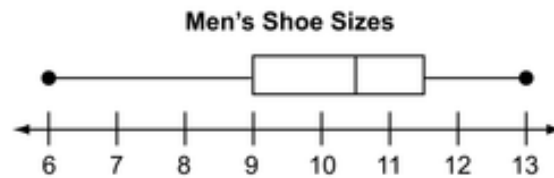
Men's Shoe Sizes

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

The median of men shoe sizes of the 40 men was $10\frac{1}{2}$. I know this becuse on a box and wisker chart the line inside of the clear box (or also known as the 50% line) is the median. And since the line is over 10 and not at 11 but in the middle of the two numbers it would have to have a decimal or fraction involveed. From my background knolage there is no shoe size that with any decimals or fractions except .5 or $\frac{1}{2}$. So by putting together all of my knolage I ended up getting $10\frac{1}{2}$ as the median of men shoe sizes.
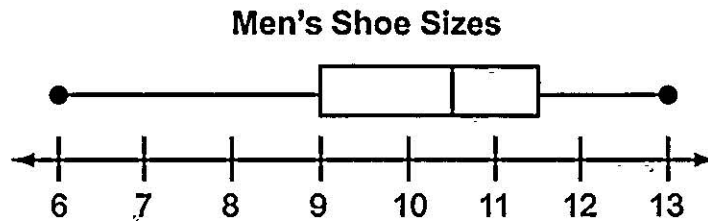
508 / 1000

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

Martin is incorrect becuase on a box-and-whisker plot each segment is a percentage. So 6 to 9 is 25% as well as $11\frac{1}{2}$ to 13. Martin thought becuase the line is bigger it MUST mean there is more peolpe with tha hoe size but no there is the same amount of men. They both have 25% of men in the segment and 25% of 40 is 10. So in conclustion Martin is incoreect becuase there is 10 men in 6 to 9 AND $11\frac{1}{2}$ to 13. 25% = 25%

410 / 1000

25. Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

A. What was the median shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

9.5 I found the median of the shoe sizes by counting to the middle. There were two shoe sizes, 9 and 10, in the middle so I found the number in the middle of them, 9.5.

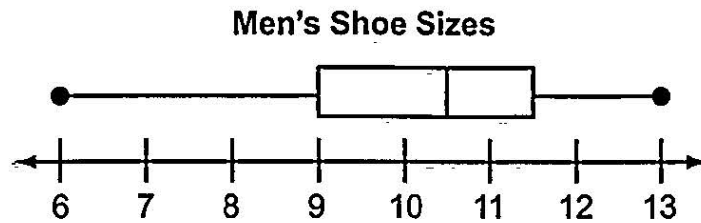**25.** *Continued.* Please refer to the previous page for task explanation.

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

Martin is incorrect because you can't compare different amounts. There are 4 sizes between $11\frac{1}{2}$ and 13 (including half sizes). Between 6 and 9 there are 7 so you have to have the same amount of shoe sizes in order to compare.

In the 6 to 9 category there were $5\frac{5}{7}$ people. I know this because I divided $40 \div 7 = 5\frac{5}{7}$ In the $11\frac{1}{2}$ to 13 there were $3\frac{1}{3}$

25. Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

The median of men's shoe sizes is 10.5 because the line in the box indicates the median.

25. *Continued.* Please refer to the previous page for task explanation.

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

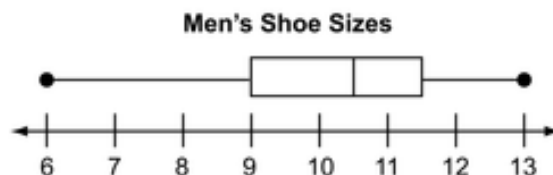The whisker shows the varying sizes, not how many people are that size.

$6-9 = 10$

$11\frac{1}{2} - 13 = 10$

I know this because each section of the box and whisker plot is $\frac{1}{4}$.

$40 \cdot \frac{1}{4} = 10$ men.

Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

The median shoe size is a 10 and a half because that is the shoe size that was recoorded the most.
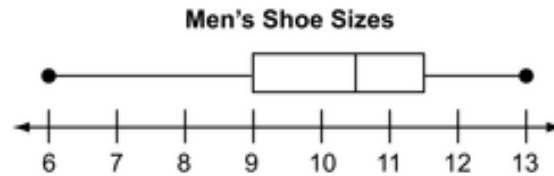98 / 1000

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

I got ten and a half because on the box a whiskerplot Shows that the most common was the 10 and a half.
103 / 1000

Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes


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6   7   8   9   10  11  12  13
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A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

> The median for the shoe size of 40 men is 10.5 because the median mark is inbetween 10 and 11 and I found my answer by looking at the box and whisker plot.
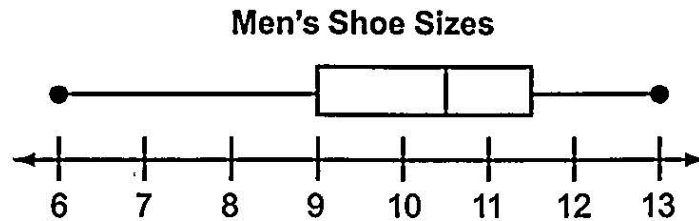> 155 / 1000

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

> Martain is not correct because each of the whiskers and boxes are worth 25% so they are equal and each interval has 10 men in it and I know this because there are 4 intervals and there are 40 men so 40/4=10.
> 208 / 1000

25. Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

10.5. I found that because I know that the line in the box stand for the median an so I just found the number that was directly in the middle of 10 and 11.
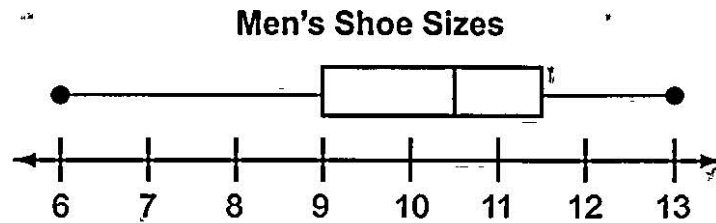
25. *Continued.* Please refer to the previous page for task explanation.

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

Martin is not correct because when you make a box and whisker plot, the box shows where the most common numbers are not the lines on the outside. That is why Martin is incorrect.

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25. Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

The median of the shoe sizes was 10.5. This is because in a box and whisker plot, the median is always the "middle" line in the box.
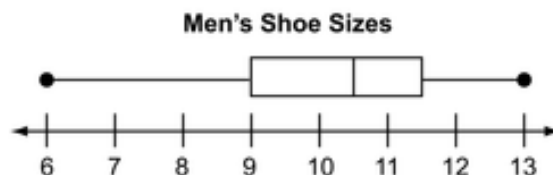
25. *Continued.* Please refer to the previous page for task explanation.

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

Martin is incorrect because they both take up 25% of the box and whisker plot. In every section of this box and whisker plot, there is 10 men because each section takes up 25%, and 25% of 40 is ten.

Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

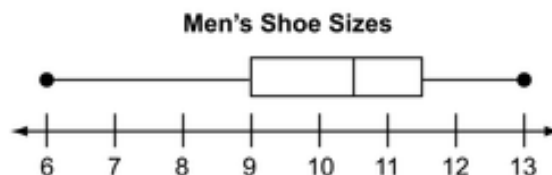the median was 10.5 because 10.5 is in the middle of 10 and 11.

63 / 1000

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

martin is not correct because the median is in the middle of 10 and 11.

71 / 1000

Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

6   7   8   9   10   11   12   13

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

The box part of the plot is the interquartile range. Each section of the box or whisker is quarter of the data so the median is
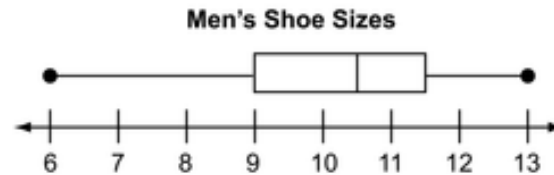
$10\frac{1}{2}$

131 / 1000

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the

whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

Each quartile is a quarter of the total 40. That means each interval includes the shoe sizes of ten men and the length of the interval has no part in finding which quartile has the most data.

191 / 1000

Carlos surveyed 40 men about their shoe sizes. Carlos made the box-and-whisker plot below to display his results.

Men's Shoe Sizes

6   7   8   9   10   11   12   13

A. What was the **median** shoe size of the 40 men Carlos surveyed? Explain how you found your answer.

> The median shoe size of the 40 men Carlos surveyed is 10.5. I found this anwser by looking at the middle line in the box of the box-and-whisker plot, I did this because the middle line of the box indicates the median of the all the data in the chart.

286 / 1000

Martin thinks more men have shoe sizes between 6 and 9 than between $11\frac{1}{2}$ and 13 because the whisker from 6 to 9 is longer than the whisker from $11\frac{1}{2}$ to 13.

B. Explain why Martin is **not** correct. As part of your explanation, find the number of men with shoe sizes in each interval and describe how you found those numbers.

> Martian is not correct because the median line is closer to $11\frac{1}{2}$ to 13 , also a longer whisker just means there is more variaty. There are 4 men with size 6, 2 men with size 7, 2 men with size 8, 10 men with size 9, 2 men with size 10, 12 men with size 11, 2 men with size 12, 6 men with size 13. I did this by guessing and checking my anwsers to match the answers in the table.

387 / 1000

PSSA Math: Men's Shoe Sizes (Grade 6); Training Set 2

Subject: Math   Item: Men's Shoe Sizes   Grade: 6

Name   _____

Number	Score	Notes
T2-1		
T2-2		
T2-3		
T2-4		
T2-5		
T2-6		
T2-7		
T2-8		
T2-9		
T2-10		