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## MAKING COMPARATIVE INFERENCES

The boys' and girls' basketball teams at Helmsburg Middle School have each played 9 games so far. The tables below show the total points they scored in each game.

| Points Scored by Boys' Basketball Team |  |  |
| :---: | :---: | :---: |
| 35 | 41 | 39 |
| 50 | 43 | 38 |
| 36 | 45 | 49 |


| Points Scored by Girls' Basketball Team |  |  |
| :---: | :---: | :---: |
| 44 | 41 | 42 |
| 42 | 43 | 43 |
| 44 | 47 | 42 |

1. Make a box plot for each data set. Use the number lines provided below.

2. Look at the box plots. Which team has a higher median number of points per game? Median for the boys' basketball team: 41 points Median for the girls' basketball team: 43 points So, the girls' basketball team has a higher median number of points.
3. Based on the box plots, which team's scoring would you infer is more variable? Explain your reasoning. Explanations may vary. Sample answer: You could infer that the sconing on the boys' basketball team is more variable since their data is more spread out.
4. Based on the box plots, which team would you infer generally scores more points per game? Explain your reasoning.
Explanations may vary. Sample answer: You could infer that the ginls' basketball team generally scores more points per game since they have a higher median.
$\qquad$ Date $\qquad$

## MAKING COMPARATIVE INFERENCES

Raina planted yellow and green squash in her vegetable garden. Then she recorded the length of each squash that she harvested.

| Length of Yellow Squash (cm) |  |  |
| :---: | :---: | :---: |
| 8 | 10 | 16 |
| 8 | 12 | 14 |
| 18 | 20 | 6 |


| Length of Green Squash (cm) |  |  |
| :---: | :---: | :---: |
| 14 | 14 | 16 |
| 12 | 14 | 13 |
| 16 | 13 | 14 |

1. Make a box plot for each data set. Use the number lines provided below.

2. Which type of Raina's squash has a higher median length based on the box plots?

Median for yellow squash: $12 \mathrm{~cm} \quad$ Median for green squash: 14 cm
So, Raina's green squash have a higher median length.
3. Based on the box plots, which type of Raina's squash would you infer has a more consistent length? Explain your reasoning.
Explanations may vary. Sample answer: You could infer that her green squash have a more consistent length because the data is less spread out.
4. Based on the box plots, which type of Raina's squash would you infer is generally shorter? Explain your reasoning.
Explanations may vary. Sample answer: You could infer that her yellow squash are generally shorter because $50 \%$ of her yellow squash were less than 12 centimeters long when harvested.

