NAME $\qquad$ DATE $\qquad$ PERIOD $\qquad$

The $7^{\text {th }}$ grade at Adams Middle School has 250 students. The Student Council surveyed 5 students from each of 10 $7^{\text {th }}$ grade homerooms. Each student was asked the following question:

Which of the following mascots would you like to have for our school?

The tallied results are shown below.

|  | TIGER | BEAR | BULL DOG | BRONCO | WILD CATS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Homeroom 1 | \\| \| \| | I |  |  |  |
| Homeroom 2 |  |  | II | I | II |
| Homeroom 3 | 1 | $\\|\\|\\|$ |  |  |  |
| Homeroom 4 | I |  | II | I | I |
| Homeroom 5 |  | II |  | I | II |
| Homeroom 6 |  | I | II |  | II |
| Homeroom 7 | II | \\| \| |  |  |  |
| Homeroom 8 |  | \| | 1 |  | \| | | |
| Homeroom 9 | 11 | II |  | I |  |
| Homeroom 10 |  | \| | I | \| | | |  |
| TOTAL | 10 | 15 | 8 | 7 | 10 |

Based on the survey, they made this dot plot:


The Student Council came to the following conclusion about their survey:

1. The sample was random. Student Council visited each homeroom. Five random students from each were surveyed.
2. The WILD CATS should be the new mascot. Twenty students answered TIGERS or WILD CATS. Since both are wild cats, it is more than the 15 responses for the BEARS.

Use the following rubric to assess the work, data display, and conclusion to determine if the survey is fair. Use the space at the bottom to explain your grading.

| LEVEL | 4 | 3 | 2 | 1 |
| :---: | :---: | :---: | :---: | :---: |
| Samples size | Appropriate size for the population | Size is too big for the population | Size is too small for the population | Can't determine size of sample |
| Sample technique | The survey is random | The survey attempts to be random, but misses | The survey does not attempt to be random | Can't determine randomness |
| Survey/ Population | The correct population is surveyed | Survey population is confusing | Survey population is incorrect | No population is stated |
| Data collection | The data is reported accurately and is easy to read | The data is reported accurately, but is confusing | The data is not reported accurately | No data is reported |
| Organization of Data | Easy to read and understand the meaning of the data | Confusing to read, but I can figure it out what data means | Confusing to read, can't figure out what data means | No organization |
| Display method | Graph or display is easy to understand | Graph or display is difficult to understand | Graph or display does not use the data collected | No graph or display |
| Conclusion about the population | Gives an unbiased, easy to understand answer to the survey | Gives an unbiased answer to the survey, but it is not easy to understand | Gives a biased answer to the survey | Does not give an answer to the survey |

Explanation of Rankings:

