1. Arthur wants to know how often the students in his grade go to NBA games. Describe a good sampling method that will give valid results
2. Mr. Holmes put student names in a bucket and selected seven names without looking. What type of sample method did he use?
3. Fifteen out of 45 adults said they bring their lunch to work. What is a reasonable prediction for the number of adults out of 1665 who bring lunch to work?
4. Which is an appropriate display to show the grades of tenth graders arranged by intervals?
5. Describe when to use each of type of display to represent a set of data.
F. bar graph
H. circle graph
G. line graph
I. histogram
6. Use the data set $\$ 29, \$ 28, \$ 25, \$ 27, \$ 29, \$ 22, \$ 29$, and $\$ 25$. Which measure of center would you use to convince people that the prices are high?
A. mean
C. mode
B. median
D. range
7. The bar graph compares the number of students that received a grade of an A, B, C or D in Ms. Logan's classroom. Why is the graph misleading?

8. The double line plot shows the number of students who attended the home games of the baseball team for two recent seasons.


Which of the following statements is not true?
F. The attendance for 2009 was more varied.
G. The attendance for 2010 was more consistent.
H. The attendance for 2009 peaked at 23 students.
I. The attendance for 2010 ranged from 20 to 27.
9. A survey showed that $90 \%$ of students would select roller coasters as their favorite ride at an amusement park. Out of 5,000 students, predict how many would select roller coasters as their favorite ride?
10. The table shows the number of hours Felisa spent sleeping each night for 12 nights. Which type of data display would not be suitable for displaying the data?

| Hours Spent Sleeping |  |  |  |
| :---: | :---: | :---: | :---: |
| 8 | 6 | 7 | 8 |
| 10 | 8 | 8 | 6 |
| 6 | 8 | 8 | 7 |

A. line plot
C. circle graph
B. scatter plot
D. line graph
11. The line plot below shows the number of fiction books read by one seventh grade class. Find the mean of the number of books read. On the lines below, explain how this could be misleading.

12. A basketball coach says that the average height of his starting five basketball players is 70 inches. On the lines below, explain how this could be misleading. The heights of the five players are shown in the table below.

| Players Position | Players Height (in.) |
| :--- | :---: |
| Center | 81 |
| Forward | 72 |
| Power Forward | 68 |
| Shooting Guard | 65 |
| Point Guard | 64 |

13. Of 450,000 registered voters, 1200 were randomly surveyed. Their voting preferences are listed in the table at the right.
a. Construct a circle graph to represent the table.
b. Predict how many of the registered voters would be undecided.

14. a. List the five different type of sampling methods.
b. Which of the five methods are biased and why?
c. Which of the five methods are unbiased and why?
