11.4 Random Samples and Surveys worksheet

State whether or not the sample is random.   If it is not random, explain why.

1.) You survey customers at a mall. You want to know which stores they shop at the most. You walk around a computer shop and choose 20 customers there for your survey.	2.) A country radio station wants to know what the most popular type of music is, so they ask their listeners to call in to say their favorite type.
3.) You want to know what 7th graders think of their science class. You poll 100 random 7th graders.	4.) You want to survey the students in your school about their exercise habits. At lunchtime you stand by a vending machine. You survey every student who buys something from the vending machine.

State whether or not the statement is biased or fair.   If it is biased, explain why.

5.) Do you want a delicious salad for lunch or the usual sandwich?	6.) Do you watch TV on Saturday like everybody else?
7.) Do you eat the recommended number of servings for fruits and vegetables?	8.) I don't like these shoes, do you?

9.) You want to estimate the number of students in a middle school who ride the bus. Which sample is best?
A.) 7 students in the hallway
B.) All students in the band
C.) 50 8th graders at random
D.) 100 students during the lunch periods

Explain why you selected your answer: answer you

10.) A survey asked 72 randomly chosen students if they were going to attend the school play. Twelve said yes. If there are 210 tickets sold for the play, predict the number of students who attend the school.

11.) A counselor surveys a random sample of 60 out of 900 high school students. 75% of them said they were going to college. She used these results to determine that 675 students in the overall school would be planning to go to college. Do you agree with her prediction?

12.) A survey asks 48 randomly chosen students if they plan to buy a school newspaper this week. Of the 48 surveyed, 32 plan to buy a school newspaper. If 360 students bought papers, predict the number of students enrolled at the school.

13a.) Write an example of a biased question.

13b.) Rewrite the biased question to make it fair.