1. Researchers at the University of Iowa College of Medicine reported that a study showed those who smoked seven or more marijuana joints per week had lower SAT math scores than non-marijuana smokers. A news report headline of the study says “New study confirms that too much pot impairs brain.”
   a. Identify the Population and the measurement variable of interest.
   Population: people who smoke seven or more joints per week
   Measurement Variable: Math SAT scores

   b. Were these results from an observational study or a randomized experiment? Why?
   Observational Study as it is unethical to randomly assign people to smoke marijuana.

   c. Explain why the headline is misleading.
   You cannot make a causal conclusion from an observational study.

2. A psychology student conducts a study to measure the amount of motivation students have for their math courses. She hand out a survey in every math class at her school on the day before spring break. What is the problem with her sample process.
   students at school the day before spring break may not be representative of Math student population and may not be very motivated.

3. In its March 3-5, 1995 issue, USA Weekend Magazine asked readers to return a survey witha variety of questions about sex and violence no T.V. Of 65,142 readers who responded, 97% were “very or somewhat concerned about sex and violence on T.V.” Based on this survey, can you conclude that about 97% of U.S. citizens are concerned about violence on T.V.? Why or why not?
   No. Those likely to respond are those with a strong opinion on the subject.