

Statistics: Survey Method Worksheet

In the following problems, identify the type of sampling used. Explain your choice.

1. In order to estimate the percentage of defects in a recent manufacturing batch, a quality control manager at Intel selects every 8th chip that comes off the assembly line starting with the 3rd, until she obtains a sample of 140 chips.
2. In order to determine the average IQ of ninth-grade students, a school psychologist obtains a list of all schools in the local public school system. She randomly selects five of these schools and administers an IQ test to all ninth-grade students at the selected schools.
3. In an effort to determine customer satisfaction, United Airlines randomly selects 50 flights during a certain week and surveys all passengers on the flights.
4. A member of Congress wishes to determine her constituency's opinion regarding estate taxes. She divides her constituency into three income classes: low-income households, middle-income households, and upper-income households. She then takes a random sample of households from each income class.
5. In an effort to identify whether an advertising campaign has been effective, a marketing firm conducts a nationwide poll by randomly selecting individuals from a list of known users of the product.
6. A radio station asks its listeners to call in their opinion regarding the use of American forces in peacekeeping missions.
7. A farmer divides his orchard into 50 subsections, randomly selects 4 and samples all of the trees within the 4 subsections in order to approximate the yield of his orchard.
8. A school official divides the student population into five classes: freshman, sophomore, junior, senior, and graduate student. The official takes a random sample from each class and asks the members' opinions regarding student services.

