

## 2. Seven Basic Principles

### SOLUTIONS

1. “In 1995, the world’s largest city, Tokyo, had a population of 27 million people. With populations of roughly 16.5 million apiece, the next two largest cities, Mexico City and Sao Paolo, were only about 60% as large as Tokyo.”
3. Choice of prose, a table, or a chart for specific situations.
  - a. Table to show detailed values and organize the 50 numbers
  - b. Multiple-line chart to illustrate approximate pattern
  - c. Prose (memo)
  - d. Pie chart
  - e. Prose (few sentences)
5. Terms that need to be defined or restated for a nontechnical audience are shown in bold.
  - a. “The Williams family’s income of \$25,000 falls below **185% of the Federal Poverty Threshold** for a family of four, qualifying them for food stamps.”
  - b. “A population that is increasing at 2% per year has a **doubling time** of 35 years.”
7. Additional information needed to answer the associated question:
  - a. How much does Brand Q (or Brand X) cost? How much money do you have?
  - b. How big is the door opening to your car? The headroom and legroom?
  - c. How many calories does Diet Fizzjuice (or Diet Limelite) have?
  - d. Where are you located? What month is it? Is temperature being measured in degrees Fahrenheit or degrees Celsius?
9. “Figure 2A shows trends in daily crude oil production in the world’s four leading oil-producing countries during the 1990s. Over the course of that decade, Saudi Arabia consistently had the highest crude oil production, followed by Russia, the United States, and Iran. However, downward trends in production in the top three oil-producing

countries, coupled with steady production in Iran, led to a narrowing of the gap between those countries between 1990 and 1999. In 1990, Saudi Arabia produced 30% more oil than the United States and more than three times as much as Iran (10 million, 7 million, and 3 million barrels per day, respectively). By 1999, Saudi Arabia's advantage had decreased to 25% more than the United States or Russia, and about twice as much as Iran."