

2. Seven Basic Principles

PROBLEM SET

1. Use complete sentences to describe the relative sizes of the cities shown in table 2A.

TABLE 2A. Population of three largest cities worldwide, 1995

City	Population (millions)
Sao Paulo	16.5
Mexico City	16.6
Tokyo	27.0

Source: Population Reference Bureau, "World Population: More than Just Numbers," Washington DC: Population Reference Bureau, 1999.

2. One of the W's is missing from each of the following descriptions of table 2B. Rewrite each sentence to include that information.

TABLE 2B. Final medal standings of the top four countries, 2002 Winter Olympic Games

Country	Gold	Silver	Bronze	Total
Germany	12	16	7	35
United States	10	13	11	34
Norway	11	7	6	24
Canada	6	3	8	17

- a. "Germany did the best at the 2002 Winter Olympics, with 35 medals, compared to 34 for the United States, 24 for Norway, and 17 for Canada."
 - b. "Gold, silver, and bronze medals each accounted for about one-third of the medal total."
 - c. "At the 2002 Winter Olympics, the United States won more medals than all other countries, followed by Canada, Germany, and Norway."
3. For each of the following situations, specify whether you would use prose, a table, or a chart.
 - a. Statistics on five types of air pollutants in the 10 largest US cities for a government report
 - b. Trends in the value of three stock market indices over a one-year period for a web page

- c. Notification to other employees in your corporation of a change in shipping fees
 - d. Distribution of voter preferences for grade-level composition of a new middle school (grades 5–8, grades 6–8, or grades 6–9) for a presentation at a local school board meeting
 - e. National estimates of the number of uninsured among part-time and full-time workers for an introductory section of an article analyzing effects of employment on insurance coverage in New York City
4. For each of the situations in the previous question, state whether you would use and define technical terms or avoid jargon.
 5. Identify terms that need to be defined or restated for a nontechnical audience.
 - 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.”
 6. Rewrite the sentences in the previous question for an audience with a fifth-grade education. Convey the main point, not the calculation or the jargon.
 7. Read the sentences below. What additional information would someone need in order to answer the associated question?
 - a. “Brand X costs twice as much as Brand Q. Can I afford Brand X?”
 - b. “My uncle is 6’6” tall? Will he fit in my new car?”
 - c. “New Diet Limelite has 25% fewer calories than Diet Fizzjuice. How much faster will I lose weight on Diet Limelite?”
 - d. “It has been above 25 degrees every day. We’re really having a warm month, aren’t we?”
 8. Rewrite each of these sentences to specify the direction and magnitude of the association.
 - a. “In the United States, race is correlated with income.” See table 2C.

TABLE 2C. Median income by race and Hispanic origin, United States, 1999

Race/Hispanic origin	Median income
White	\$42,504
Black	\$27,910
Asian/Pacific Islander	\$51,205
Hispanic (can be of any race)	\$30,735

Source: US Bureau of the Census, *Statistical Abstract of the United States*, 2001, table 662.

- b. "There is an association between average speed and distance traveled." (Pick two speeds to compare.)
 - c. Write a hypothesis about the relationship between amount of exercise and weight gain.
9. Use the GEE approach on pp. 30–32 of *Writing about Multivariate Analysis, 2nd Edition* to describe the patterns in figure 2A. Include an introductory sentence about the purpose of the chart before summarizing the patterns.

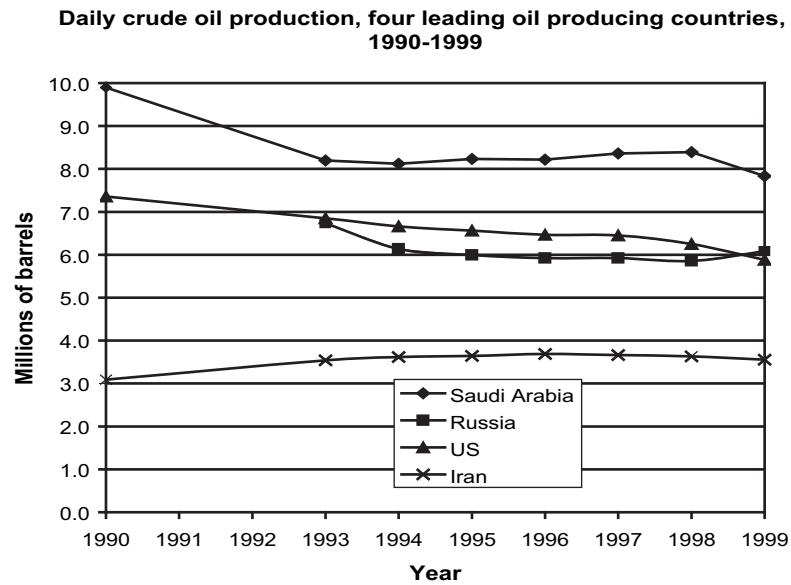


Figure 2A.