| Directed Reading B *continued*

PATTERNS SHOWN BY GRAPHS

Match the correct description with the correct term. Write the letter in the space provided.

_____ **18.** the pattern of data on a graph

_____ **19.** a graph in which the relationship between the independent variable and dependent variable can be shown with a straight line

_____ **20.** a graph in which the relationship between variables cannot be shown with a straight line

_____ **21.** a relationship in which the dependent variable increases as the independent variable increases

_____ **22.** a relationship in which one variable increases while the other variable decreases

a. nonlinear graph

b. linear graph

c. inverse

d. direct

e. trend

23. How are computers helpful to scientists?

_____

_____

_____

_____

Skills Worksheet

Directed Reading B

Section: Analyzing Your Data (pp. 56–61)
WHY MATHEMATICS?

_____ **1.** Which of the following is NOT something that scientists use
mathematics for?
- **a.** learning how to speak a foreign language
- **b.** seeing patterns in data to make predictions
- **c.** answering questions
- **d.** understanding and summarizing large amounts of data

2. How does a meteorologist use mathematics?

_____

_____

_____

3. Why is mathematics often called the "language of science"?

_____

_____

ACCURACY OF DATA

4. Name three reasons why scientists might get an inaccurate reading when
conducting an experiment.

_____

_____

_____

REPRODUCIBILITY OF DATA

_____ **5.** Results of an experiment can be supported or accepted by other
scientists if the data
- **a.** are not reproducible.
- **b.** are reproducible.
- **c.** cannot be converted into SI units.
- **d.** are supported only by the French Academy of Sciences.