CHAPTER 4

FILL-IN-THE-BLANK ITEMS

Introduction

An old adage states that a picture is worth a (1) _____ words, and recognition of the truth of

this leads to the discussion of (2) _____ as a descriptive technique. The graphs discussed in

the chapter are the frequency polygon, the (3) _____ frequency or percentage curve, the

(4) _____, the bar graph, the stem-and-leaf plot, and the (5) _____ graph.

Rules for Graphing

To help prevent misrepresentation of data, a graphing convention is often used that states that the

(6) _____ axis should be approximately (7) _____ as long as the X axis. This

convention is called the (8) _____ rule. It is also important to begin the values on the Y axis

with (9) _____ and to be sure that the Y axis units reflect reasonable

(10) _____ in the data.

The Frequency Polygon

In a frequency polygon, the (11) _____ are plotted on the baseline or X axis, and the

(12) _____ are plotted on the ordinate or Y axis. Labeling of the axes is very important: the

word (13) " _____ " appears below the X axis, and the word (14) " _____ "

appears to the left of the *Y* axis. The graph should also have a (15) _____ describing the

origin of the data.

A comparison of distributions using the percentage or relative frequency polygon

If you want to compare distributions with unequal *N*s on the same axes, you must first convert frequencies

to (16) _____. Once you have done this, you can plot a percentage or

(17) _____ frequency polygon.

Shapes of frequency polygons

The (18) _____ or bell-shaped curve is an important symmetrical curve. Unimodal curves

with a high peak at one end and a long tail at the other end are called (19) _____ curves. If

the tail is to the right, the curve is (20) _____ _____; if the tail is to the left,

the curve is (21) _____ _____.

The cumulative frequency (or cumulative percentage) polygon

In the cumulative frequency or percentage polygon, the cumulative frequencies or percentages are plotted

over the (22) _____. The relative position of an individual may be determined from the

cumulative polygon by drawing a (23) _____ line from that person's score on the *X* axis to

the curve and then drawing a (24) _____ line from that point on the curve to the *Y* axis. The

point at which the (25) _____ line meets the *Y* axis gives an approximate number (or

percentage) of individuals scoring at or below the score being considered.

The Histogram

The histogram is like the frequency polygon except that a rectangular (26) _____ is drawn

over each score value on the *X* axis, with its height determined by the score's (27) _____.

Each bar is centered above a score value and extends (28) _____ between adjacent scores.

The Bar Graph

The bar graph is a type of histogram used to graph (29) _____ scale data. The bars don't

have to touch, and the spacing between them is (30) _____.

The Stem-and-Leaf Plot

To construct a stem-and-leaf plot, each score is divided into two parts: a (31) _____ and a

(32) _____. The first digit(s) is the (33) _____ and the last digit(s) is the

(34) _____. For example, a score of 133 would have a stem of (35) _____

and a leaf of (36) _____. Each stem is listed from lowest to highest, a

(37) _____ line is drawn to the right of the column of stems, and then the

(38) _____ are put beside the stems. If the plot is rotated so that the stems become

(39) _____ on the baseline of a graph, the result is a (40) _____, with digits

over the scores rather than bars.

The Line Graph

In a line graph, an (41) _____ variable is recorded on the X axis, and some measure of the

dependent variable appears on the Y axis. Because the independent variable is assumed to be

(42) _____, a line is used to connect the plotted points.