

MATH 1473: Mathematics for Critical Thinking

The University of Oklahoma, Dept. of Mathematics

Study Guide and Notes for Chapter 4

Compiled by John Paul Cook

For use in conjunction with the course textbook:

Mathematics: A Practical Odyssey (Sixth Edition)

By David Johnson and Thomas Mowry

The exercises in this packet come from a variety of sources: the course textbook, and supplementary course materials provided by Ms. Christine Tinsley, University of Oklahoma; additionally, some of the exercises are original.

Section 4.1: Population, Sample, and Data

Key Terms

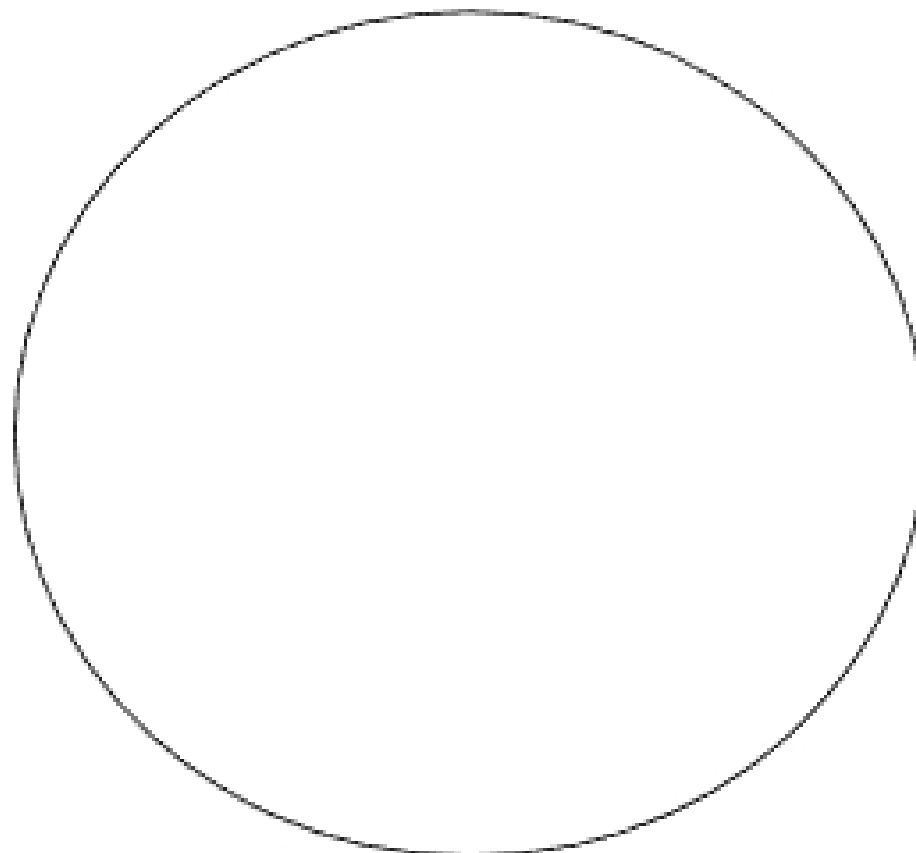
Statistics, descriptive statistics, inferential statistics, population, sample, data point, frequency, frequency distribution, relative frequency, histogram, density, relative frequency density, categorical data, pie chart

Practice Problems

- 1) To study the literary habits of students at a local college, thirty randomly selected students were surveyed to determine the number of times they had been to the library during the last week. The following results were obtained:

1	5	2	1	1	4	2	1	5	4
5	2	5	1	2	3	4	1	1	2
3	5	4	1	2	2	4	5	1	2

- a) Organize the given data by creating a frequency distribution.
- b) Construct a pie chart to represent the data.



c) Construct a histogram using single-valued classes of data.

2) The weights, in pounds, of 35 packages of ground beef at the Cut Above Market were as follows:

1.0	1.9	2.5	1.2	2.0	0.7	1.3	2.4	1.1
3.3	2.4	0.8	2.3	1.7	1.0	2.8	1.4	3.0
0.9	1.1	1.4	2.2	1.5	3.2	2.1	2.7	1.8
1.6	2.3	2.6	1.3	2.9	1.9	1.2	0.5	

a) Organize the given data by creating a frequency distribution.

b) Construct a histogram to represent the data.