Probability Topics: Review*

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Abstract

This module provides a number of homework/review exercises related to Probability.

The first six exercises refer to the following study: In a survey of 100 stocks on NASDAQ, the average percent increase for the past year was 9% for NASDAQ stocks. Answer the following:

Exercise 1 ***(Solution on p. 3.)***

The "average increase" for all NASDAQ stocks is the:

A. Population
B. Statistic
C. Parameter
D. Sample
E. Variable

Exercise 2 ***(Solution on p. 3.)***

All of the NASDAQ stocks are the:

A. Population
B. Statistic
C. Parameter
D. Sample
E. Variable

Exercise 3 ***(Solution on p. 3.)***

9% is the:

A. Population
B. Statistic
C. Parameter
D. Sample
E. Variable

Exercise 4 ***(Solution on p. 3.)***

The 100 NASDAQ stocks in the survey are the:

*Version 1.9: Feb 18, 2009 7:28 pm -0600
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A. Population
B. Statistic
C. Parameter
D. Sample
E. Variable

Exercise 5 *(Solution on p. 3.)*
The percent increase for one stock in the survey is the:

A. Population
B. Statistic
C. Parameter
D. Sample
E. Variable

Exercise 6 *(Solution on p. 3.)*
Would the data collected be qualitative, quantitative – discrete, or quantitative – continuous?

The next two questions refer to the following study: Thirty people spent two weeks around Mardi Gras in New Orleans. Their two-week weight gain is below. (Note: a loss is shown by a negative weight gain.)

Weight Gain	Frequency
-2	3
-1	5
0	2
1	4
4	13
6	2
11	1

Table 1

Exercise 7 *(Solution on p. 3.)*
Calculate the following values:

a. The average weight gain for the two weeks
b. The standard deviation
c. The first, second, and third quartiles

Exercise 8
Construct a histogram and a boxplot of the data.

Solutions to Exercises in this Module

Solution to Exercise (p. 1)

C. Parameter

Solution to Exercise (p. 1)

A. Population

Solution to Exercise (p. 1)

B. Statistic

Solution to Exercise (p. 1)

D. Sample

Solution to Exercise (p. 2)

E. Variable

Solution to Exercise (p. 2)
quantitative - continuous
Solution to Exercise (p. 2)

a. 2.27
b. 3.04
c. -1, 4, 4