Statistical Reasoning Name:

Standard Normal Distributions Practice

A customer calling a call center spends an average of 45 minutes on hold during peak season, with a standard deviation of 12 minutes. Suppose these times are normally distributed. Find the probability that the customer will be on hold for each interval of times:

a. More than 54 minutes.

b. Less than 24 minutes.

c. Between 24 and 54 minutes.

d. More than 39 minutes.

Suppose the scores on a chemistry test were normally distributed with a mean of 78 and a standard deviation of 10. If a student who completed the test is chosen at random,

a. Find the probability that the student earned fewer than 75 points.

b. Find the probability that the student earned at least 70 points.

c. Find the probability that the student earned between 80 and 90 points.

d. Find the probability that the student earned either less than 80 points or more than 90 points.