Sample Quiz 2
MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) According to the empirical rule, if the data form a "bell-shaped" normal distribution, __________ percent of the observations will be contained within 2 standard deviations around the mean.
   A) 68.26   B) 95.44   C) 88.89   D) 93.75

TABLE 3-2
The data below represent the amount in grams of carbohydrates in a serving of breakfast cereal.

11 15 23 29 19 22 21 20 15 25 17

2) Referring to Table 3-2, the mean carbohydrates in this sample is __________ grams.
   A) 19.73   B) 23.50   C) 21.70   D) 17.87   E) 15.50

3) Referring to Table 3-2, the standard deviation of the carbohydrate amounts is __________ grams (Using mean=20).
   A) 5.02   B) 252.00   C) 25.20   D) 7.20   E) 15.88

4) Referring to Table 3-2, the five-number summary of the carbohydrate amounts consists of __________, __________, __________, __________, and __________.
   A) 11, 15, 20, 23, 29   B) 11, 19, 22, 25, 17   C) 11, 23, 22, 25, 17   D) 11, 17, 21, 23, 29

5) Referring to Table 3-2, what type of shape does the distribution of the sample appear to have?
   A) Right-skewed.   B) Left-skewed.   C) Symmetrical   D) bell-shaped

TABLE 4-1
Mothers Against Drunk Driving is a very visible group whose main focus is to educate the public about the harm caused by drunk drivers. A study was recently done that emphasized the problem we all face with drinking and driving. Four hundred accidents that occurred on a Saturday night were analyzed. Two items noted were the number of vehicles involved and whether alcohol played a role in the accident. The numbers are shown below:

<table>
<thead>
<tr>
<th>Number of Vehicles</th>
<th>Did alcohol play a role?</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>175</td>
</tr>
<tr>
<td>Totals</td>
<td>75</td>
<td>275</td>
</tr>
</tbody>
</table>

6) Referring to Table 4-1, what proportion of accidents involved alcohol and a single vehicle?
   A) 25/400   B) 195/400   C) 245/400   D) 50/400

7) Referring to Table 4-1, what proportion of accidents involved alcohol or a single vehicle?
   A) 245/400   B) 195/400   C) 25/400   D) 50/400

8) Referring to Table 4-1, given that 3 vehicles were involved, what proportion of accidents involved alcohol?
   A) 20/30   B) 20/170   C) 20/50   D) 20/400

9) The probability that a new advertising campaign will increase sales is assessed as being 0.80. The probability that the cost of developing the new ad campaign can be kept within the original budget allocation is 0.40. Assuming that the two events are independent, the probability that the cost is kept within budget and the campaign will increase sales is:
   A) 0.88   B) 0.20   C) 0.40   D) 0.32
Answer Key
Testname: SAMPLE_QUIZ2.TST

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) B
2) A
3) A
4) A
5) A
6) D
7) B
8) C
9) D