## Assignment



This assignment does NOT require you to use Excel.

Make sure to use the **Assignment 2 template** (found in your online course) when you turn in your answers.

## **Question 1**

An *Adweek* Media/Harris Poll revealed that 44% of U.S. adults in the 18–34 years category think that "Made in America" ads boost sales. A different Harris Interactive poll showed that 78% of U.S. adults in the 18–34 years category use social media online. Suppose that 85% of U.S. adults in the 18–34 years category think that "Made in America" ads boost sales or use social media online.

If a U.S. adult in the 18-34 years category is randomly selected

- a. What is the probability that the person thinks that "Made in America" ads boost sales and uses social media online?
- b. What is the probability that the person thinks that "Made in America" ads boost sales given that the person does not use social media online?

## **Question 2**

According to a report by Scarborough Research, the average monthly household cellular phone bill is \$73. Suppose local monthly household cell phone bills are normally distributed with a standard deviation of \$11.35.

- a. What is the probability that a randomly selected monthly cell phone bill is more than \$100?
- b. What is the probability that a randomly selected monthly cell phone bill is between \$60 and \$83?
- c. What is the probability that a randomly selected monthly cell phone bill is between \$80 and \$90?
- d. What is the probability that a randomly selected monthly cell phone bill is no more than \$55?

## Question 3

A Travel Weekly International Air Transport Association survey asked business travelers about the purpose for their most recent business trip. 19% responded that it was for an internal company visit. Suppose 950 business travelers are randomly selected.

- a. What is the probability that more than 25% of the business travelers say that the reason for their most recent business trip was an internal company visit?
- b. What is the probability that between 15% and 20% of the business travelers say that the reason for their most recent business trip was an internal company visit?

c. What is the probability that between 133 and 171 of the business travelers say that the reason for their most recent business trip was an internal company visit?

Submit your Assignment to the Unit 2 Dropbox.

GB513 Unit 2 Assignment		
Content and analysis	Points Possible	Points Earned
Probability that a randomly selected U.S. adult between 18 – 34 years of age thinks that "Made in America" ads boost sales and uses social media online. (Question 1)	5	
Probability that a randomly selected U.S. adult between 18 – 34 years of age thinks that "Made in America" ads boost sales given that the person <b>does not</b> use social media online. (Question 1)	5	
Probability that a randomly selected monthly cell phone bill is more than \$100, using the data provided for Question 2 (a)	5	
Probability that a randomly selected monthly cell phone bill is between \$60 - \$83, using the data provided for Question 2 (b)	5	
Probability that a randomly selected monthly cell phone bill is between \$80 - \$90, using the data provided for Question 2 (c)	5	
Probability that a randomly selected monthly cell phone bill is no more than \$55, using the data provided for Question 2 (d)	5	
Probability that more than 25% of the business travelers say that the reason for their most recent business trip was an internal company visit, given the data provided for Question 3 (a).	5	
Probability that between 15% and 20% of the business travelers say that the reason for their most recent business trip was an internal company visit, given the data provided for Question 3 (b).	5	
Probability that between 133 and 171 of the business travelers say that the reason for their most recent	5	

business trip was an internal company visit, given the data provided for Question 3 (c).		
Unit 2 Assignment Template was used.	5	
Total	50	