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| **Question 3 of 40** | 0.0/ 2.5 Points |

A two-tailed test is conducted at the 5% significance level. Which of the z-scores below is the smallest one that leads to rejection of the null hypothesis?

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|  A. 1.12 |  |
|  B. 1.48 |  |
|  C. 1.84 |  |
|  D. 2.15 |  |

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| **Question 4 of 40** | 0.0/ 2.5 Points |

A psychologist claims that more than 19 percent of the population suffers from professional problems due to extreme shyness. Assume that a hypothesis test of the claim has been conducted and that the conclusion of the test was to reject the null hypothesis. Identify the population to which the results of the test apply.

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|  A. The population is all shy workers. |  |
|  B. The population cannot be identified from the description of the study. |  |
|  C. The population is all American workers. |  |
|  D. The population is all American professional workers (doctors, lawyers, CPA’s, and the like.. |  |

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| **Question 5 of 40** | 0.0/ 2.5 Points |

A researcher claims that the amounts of acetaminophen in a certain brand of cold tablets have a mean different from the 600 mg claimed by the manufacturer. Test this claim at the 0.02 level of significance. The mean acetaminophen content for a random sample of n = 41 tablets is 603.3 mg. Assume that the population standard deviation is 4.9 mg.

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|  A. Since the test statistic is greater than the critical z, there is sufficient evidence to accept the null hypothesis and to support the claim that the mean content of acetaminophen is 600 mg. |  |
|  B. Since the test statistic is greater than the critical z, there is sufficient evidence to reject the null hypothesis and to support the claim that the mean content of acetaminophen is not 600 mg. |  |
|  C. Since the test statistic is less than the critical z, there is sufficient evidence to reject the null hypothesis and to support the claim that the mean content of acetaminophen is not 600 mg. |  |
|  D. Since the test statistic is greater than the critical z, there is insufficient evidence to reject the null hypothesis and to support the claim that the mean content of acetaminophen is not 600 mg. |  |

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| **Question 6 of 40** | 0.0/ 2.5 Points |

z = 1.8 for Ha:  µ >   claimed value. What is the P-value for the test?

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|  A. 0.9641 |  |
|  B. 3.59 |  |
|  C. 96.41 |  |
|  D. 0.0359 |  |

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| **Question 7 of 40** | 0.0/ 2.5 Points |

 = 4.8 minutes.σIn 1990, the average duration of long-distance telephone calls originating in one town was 9.4 minutes. A long-distance telephone company wants to perform a hypothesis test to determine whether the average duration of long-distance phone calls has changed from the 1990 mean of 9.4 minutes. The mean duration for a random sample of 50 calls originating in the town was 8.6 minutes. Does the data provide sufficient evidence to conclude that the mean call duration, µ, is different from the 1990 mean of 9.4 minutes? Perform the appropriate hypothesis test using a significance level of 0.01. Assume that

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|  1.2 there is sufficient evidence to conclude that the mean value has changed from the 1990 mean of 9.4 minutes.−A. With a z of  |  |
|  B. With a P-value of 0.2302 there is not sufficient evidence to conclude that the mean value is less than the 1990 mean of 9.4 minutes. |  |
|  C. With a P-value of 0.2302 there is sufficient evidence to conclude that the mean value is less than the 1990 mean of 9.4 minutes. |  |
|  D. With a z of –1.2 there is not sufficient evidence to conclude that the mean value has changed from the 1990 mean of 9.4 minutes. |  |

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| **Question 9 of 40** | 0.0/ 2.5 Points |

 A right-tailed test is conducted at the 5% significance level. Which of the following z-scores is the smallest one in absolute value that leads to rejection of the null hypothesis?

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|  A. 1.61 |  |
|  B. 1.85 |  |
|  C. -1.98 |  |
|  D. -2.06 |  |

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| **Question 11 of 40** | 0.0/ 2.5 Points |

A consumer group claims that the mean running time for a certain type of flashlight battery is not the same as the manufacturer’s claims. Determine the null and alternative hypotheses for the test described.

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|  A.H0: µ = Manufacturer’s claims     Ha: µ < Manufacturer’s claims |  |
|  B.H0: µ = Manufacturer’s claims    Ha: µ  Manufacturer’s claims |  |
|  C.H0: µ = Manufacturer’s claims     Ha: µ > Manufacturer’s claims |  |
|  D.H0: µ  Manufacturer’s claims     Ha: µ = Manufacturer’s claims |  |

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| **Question 12 of 40** | 0.0/ 2.5 Points |

A poll of 1,068 adult Americans reveals that 52% of the voters surveyed prefer the Democratic candidate for the presidency. At the 0.05 significance level, test the claim that more than half of all voters prefer the Democrat.

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|  A. Reject the null hypothesis. Conclude that there is insufficient evidence that more than half of all voters prefer Democrats. |  |
|  B. Do not reject the null hypothesis. Conclude that there is sufficient evidence that more than half of all voters prefer Democrats. |  |
|  C. Reject the null hypothesis. Conclude that there is sufficient evidence that more than half of all voters prefer Democrats. |  |
|  D. Do not reject the null hypothesis. Conclude that there is insufficient evidence that more than half of all voters prefer Democrats. |  |

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| **Question 13 of 40** | 0.0/ 2.5 Points |

A long-distance telephone company claims that the mean duration of long-distance telephone calls originating in one town was greater than 9.4 minutes, which is the average for the state. Determine the conclusion of the hypothesis test assuming that the results of the sampling do not lead to rejection of the null hypothesis.

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|  A. Conclusion: Support the claim that the mean is less than 9.4 minutes. |  |
|  B. Conclusion: Support the claim that the mean is greater than 9.4 minutes. |  |
|  C. Conclusion: Support the claim that the mean is equal to 9.4 minutes. |  |
|  D. Conclusion: Do not support the claim that the mean is greater than 9.4 minutes. |  |

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| **Question 14 of 40** | 0.0/ 2.5 Points |

The owner of a football team claims that the average attendance at home games is over 4000, and he is therefore justified in moving the team to a city with a larger stadium. Assume that a hypothesis test of the claim has been conducted and that the conclusion of the test was to reject the null hypothesis. Identify the population to which the results of the test apply.

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|  A. All games played by the team in question in which the attendance is over 4000 |  |
|  B. All future home games to be played by the team in question |  |
|  C. All home games played by the team in question |  |
|  D. None of the populations given are appropriate |  |

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| **Question 15 of 40** | 0.0/ 2.5 Points |

A psychologist claims that more than 29 percent of the professional population suffers from problems due to extreme shyness. Assuming that a hypothesis test of the claim has been conducted and that the conclusion is failure to reject the null hypothesis, state the conclusion in non-technical terms.

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|  A. There is sufficient evidence to support the claim that the true proportion is less than 29 percent. |  |
|  B. There is not sufficient evidence to support the claim that the true proportion is greater than 29 percent. |  |
|  C. There is sufficient evidence to support the claim that the true proportion is equal to 29 percent. |  |
|  D. There is sufficient evidence to support the claim that the true proportion is greater than 29 percent. |  |

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| **Question 17 of 40** | 0.0/ 2.5 Points |

https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%207%20exam/MA260%20Lesson%207%20exam%20question%202.JPGIf a fan purchased a bag with 30 peanuts, what is the lowest level at which this would be a significant event?

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|  A. 0.05 |  |
|  B. 0.025 |  |
|  C. 0.01 |  |
|  D. It is not significant at any of the levels given |  |

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| **Question 18 of 40** | 0.0/ 2.5 Points |

In the past, the mean running time for a certain type of flashlight battery has been 8.0 hours. The manufacturer has introduced a change in the production method and wants to perform a hypothesis test to determine whether the mean running time has increased as a result. The hypotheses are:H0 : µ  = 8.0 hoursHa : µ  > 8.0 hoursExplain the meaning of a Type II error.

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|  A. Concluding that µ > 8.0 hours when in fact µ > 8.0 hours |  |
|  B. Failing to reject the hypothesis that µ = 8.0 hours when in fact µ > 8.0 hours |  |
|  C. Concluding that µ > 8.0 hours |  |
|  D. Failing to reject the hypothesis that µ = 8.0 hours when in fact µ = 8.0 hours |  |

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| **Question 20 of 40** | 0.0/ 2.5 Points |

At one school, the mean amount of time that tenth-graders spend watching television each week is 18.4 hours. The principal introduces a campaign to encourage the students to watch less television. One year later, the principal wants to perform a hypothesis test to determine whether the average amount of time spent watching television per week has decreased.
Formulate the null and alternative hypotheses for the study described.

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|  A.Ho: µ = 18.4 hours     H  : µ  18.4 hours |  |
|  B.Ho: µ = 18.4 hours     H  : µ < 18.4 hours |  |
|  C.Ho: µ  18.4 hours     H  : µ < 18.4 hours |  |
|  D.Ho: µ = 18.4 hours     H  : µ > 18.4 hours |  |
| **Question 31 of 40** | 0.0/ 2.5 Points |

The critical value of χ2 for a 2 x 2 table using a 0.05 significance level is 3.841. If the value of the χ2 statistic in Problem 8 had been 3.427, state your conclusion about the relationship between gender and colorblindness.

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|  A.Do not reject H0. There is not sufficient evidence to support the claim that gender and colorblindness are related. |  |
|  B.Do not reject H0. There is sufficient evidence to support the claim that gender and colorblindness are related. |  |
|  C.Reject H0. There is not sufficient evidence to support the claim that gender and colorblindness are related. |  |
|  D.Reject H0. There is sufficient evidence to support the claim that gender and colorblindness are related. |  |

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| **Question 34 of 40** | 0.0/ 2.5 Points |

One hundred people are selected at random and tested for colorblindness to determine whether gender and colorblindness are independent. The following counts were observed.

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| --- | --- | --- | --- |
|   | **Colorblind** | **Not Colorblind** | **Total** |
| Male | 7 | 53 | 60 |
| Female | 1 | 39 | 40 |
| Total | 8 | 92 | 100 |

If gender and colorblindness are independent, find the expected values corresponding to the female combinations of gender and colorblindness.

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|  A. Colorblind Female 4.8; Not Colorblind Female 55.2 |  |
|  B. Colorblind Female 3.2; Not Colorblind Female 36.8 |  |
|  C. Colorblind Female 4.8; Not Colorblind Female 35.2 |  |
|  D. Colorblind Female 3.8; Not Colorblind Female 36.2 |  |

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| **Question 35 of 40** | 0.0/ 2.5 Points |

A 95% confidence interval for the mean of a normal population is found to be 15.6 < µ < 25.2. What is the margin of error?

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|  A. 3.9 |  |
|  B. 4.8 |  |
|  C. 4.9 |  |
|  D. 3.7 |  |

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| **Question 36 of 40** | 2.5/ 2.5 Points |

One hundred people are selected at random and tested for colorblindness to determine whether gender and colorblindness are independent. The following counts were observed.

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| --- | --- | --- | --- |
|   | **Colorblind** | **Not Colorblind** | **Total** |
| Male | 7 | 53 | 60 |
| Female | 1 | 39 | 40 |
| Total | 8 | 92 | 100 |

If gender and colorblindness are independent, find the expected values corresponding to the male combinations of gender and colorblindness.

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|  A. Colorblind Male 4.8; Not Colorblind Male 55.2 |  |
|  B. Colorblind Male 6.8; Not Colorblind Male 53.2 |  |
|  C. Colorblind Male 4.8; Not Colorblind Male 55.4 |  |
|  D. Colorblind Male 4.8; Not Colorblind Male 56.2 |  |

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| **Question 37 of 40** | 0.0/ 2.5 Points |

A golfer wished to find a ball that would travel more than 170 yards when hit with his 6-iron with a club head speed of 90 miles per hour. He had a golf equipment lab test a low compression ball by having a robot swing his club 12 times at the required speed. State the null and alternative hypotheses for this test.

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|  A.H0: µ > 170; Ha: µ = 170 |  |
|  B.H0: µ < 170; Ha: µ = 170 |  |
|  C.H0: µ = 170; Ha: µ > 170 |  |
|  D.H0: µ = 160; Ha: µ > 160 |  |

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| **Question 27 of 40** | 0.0/ 2.5 Points |

One hundred people are selected at random and tested for colorblindness to determine whether gender and colorblindness are independent. The following counts were observed.

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| --- | --- | --- | --- |
|   | **Colorblind** | **Not Colorblind** | **Total** |
| Male | 8 | 52 | 60 |
| Female | 2 | 38 | 40 |
| Total | 10 | 90 | 100 |

Find the value of the χ2 statistic for the data above.

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|  A. 1.463 |  |
|  B. 1.852 |  |
|  C. 1.947 |  |
|  D. 1.949 |  |

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| **Question 29 of 40** | 0.0/ 2.5 Points |

Which of the following statements is true?

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|  A. The p distribution cannot be used when finding a confidence interval for the population mean with a small sample anytime the population standard deviation is unknown. |  |
|  B. The t distribution can be used when finding a confidence interval for the population mean with a small sample anytime the population standard deviation is unknown. |  |
|  C. The t distribution cannot be used when finding a confidence interval for the population mean with a small sample anytime the population standard deviation is unknown. |  |
|  D. The p distribution can be used when finding a confidence interval for the population mean with a small sample anytime the population standard deviation is unknown. |  |

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| **Question 30 of 40** | 0.0/ 2.5 Points |

Which of the following statements is true?

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|  A. The t distribution cannot be used when finding a confidence interval for the population mean with a small sample whenever the sample comes from a symmetric population. |  |
|  B. The t distribution can be used when finding a confidence interval for the population mean with a small sample whenever the sample comes from a symmetric population. |  |
|  C. The p distribution can be used when finding a confidence interval for the population mean with a small sample whenever the sample comes from a symmetric population. |  |
|  D. The p distribution can be used when finding a confidence interval for the population mean with a small sample whenever the sample comes from a symmetric population. |  |

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| **Question 31 of 40** | 0.0/ 2.5 Points |

The critical value of χ2 for a 2 x 2 table using a 0.05 significance level is 3.841. If the value of the χ2 statistic in Problem 8 had been 3.427, state your conclusion about the relationship between gender and colorblindness.

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|  A.Do not reject H0. There is not sufficient evidence to support the claim that gender and colorblindness are related. |  |
|  B.Do not reject H0. There is sufficient evidence to support the claim that gender and colorblindness are related. |  |
|  C.Reject H0. There is not sufficient evidence to support the claim that gender and colorblindness are related. |  |
|  D.Reject H0. There is sufficient evidence to support the claim that gender and colorblindness are related. |  |

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| **Question 32 of 40** | 2.5/ 2.5 Points |

The following data were analyzed using one-way analysis of variance.

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| A | B | C |
| 34 | 27 | 19 |
| 26 | 23 | 31 |
| 31 | 29 | 22 |
| 28 | 21 | 22 |

Which one of the following statements is correct?

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|  A.The purpose of the analysis is to determine whether the groups A, B, and C are independent. |  |
|  B. The purpose of the analysis is to test the hypothesis that the population means of the three groups are equal. |  |
|  C. The purpose of the analysis is to test the hypothesis that the population variances of the three groups are equal. |  |
|  D. The purpose of the analysis is to test the hypothesis that the sample means of the three groups are equal. |  |

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| **Question 33 of 40** | 0.0/ 2.5 Points |

The \_\_\_\_\_\_\_\_\_\_ test statistic is for the one-way analysis of variance.

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|  A. P-Value |  |
|  B. t |  |
|  C. F |  |
|  D. p |  |

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| **Question 34 of 40** | 0.0/ 2.5 Points |

One hundred people are selected at random and tested for colorblindness to determine whether gender and colorblindness are independent. The following counts were observed.

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| --- | --- | --- | --- |
|   | **Colorblind** | **Not Colorblind** | **Total** |
| Male | 7 | 53 | 60 |
| Female | 1 | 39 | 40 |
| Total | 8 | 92 | 100 |

If gender and colorblindness are independent, find the expected values corresponding to the female combinations of gender and colorblindness.

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|  A. Colorblind Female 4.8; Not Colorblind Female 55.2 |  |
|  B. Colorblind Female 3.2; Not Colorblind Female 36.8 |  |
|  C. Colorblind Female 4.8; Not Colorblind Female 35.2 |  |
|  D. Colorblind Female 3.8; Not Colorblind Female 36.2 |  |

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| **Question 35 of 40** | 0.0/ 2.5 Points |

A 95% confidence interval for the mean of a normal population is found to be 15.6 < µ < 25.2. What is the margin of error?

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|  A. 3.9 |  |
|  B. 4.8 |  |
|  C. 4.9 |  |
|  D. 3.7 |  |

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| **Question 37 of 40** | 0.0/ 2.5 Points |

A golfer wished to find a ball that would travel more than 170 yards when hit with his 6-iron with a club head speed of 90 miles per hour. He had a golf equipment lab test a low compression ball by having a robot swing his club 12 times at the required speed. State the null and alternative hypotheses for this test.

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|  A.H0: µ > 170; Ha: µ = 170 |  |
|  B.H0: µ < 170; Ha: µ = 170 |  |
|  C.H0: µ = 170; Ha: µ > 170 |  |
|  D.H0: µ = 160; Ha: µ > 160 |  |

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| **Question 39 of 40** | 0.0/ 2.5 Points |

Which of the following statements is true?

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|  A.The t distribution can be used when finding a confidence interval for the population mean whenever the sample size is small. |  |
|  B. The p distribution can be used when finding a confidence interval for the population mean whenever the sample size is small. |  |
|  C. The t distribution cannot be used when finding a confidence interval for the population mean whenever the sample size is small. |  |
|  D. The p distribution cannot be used when finding a confidence interval for the sample mean whenever the sample size is small. |  |

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| **Question 40 of 40** | 0.0/ 2.5 Points |

A golfer wished to find a ball that would travel more than 180 yards when hit with his 5-iron with a club speed of 90 miles per hour. He had a golf equipment lab test a low compression ball by having a robot swing his club 7 times at the required speed. State the null and alternative hypotheses for this test.

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|  A.H0:  µ = 180; Ha:  µ > 180 |  |
|  B.H0: µ > 180; Ha: µ > 180 |  |
|  C.H0: µ < 180; Ha: µ > 180 |  |
|  D.H0: µ = 180; Ha: µ < 180 |  |

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| **Question 3 of 40** | 0.0/ 2.5 Points |

A study of two types of weed killers was done on two identical weed plots. One weed killer killed 15% more weeds than the other. This difference was significant at the 0.05 level. What does this mean?

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|  A. The improvement was due to the fact that there were more weeds in one study. |  |
|  B. The probability that the difference was due to chance alone is greater than 0.05. |  |
|  C. The probability that one weed killer performed better by chance alone is less than 0.05. |  |
|  D. There is not enough information to make any conclusion. |  |

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| **Question 5 of 40** | 0.0/ 2.5 Points |

Of 1308 people who came into a blood bank to give blood, 314 people had high blood pressure. Estimate the probability that the next person who comes in to give blood will have high blood pressure (to 3 decimal places).

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|  A. 0.250 |  |
|  B. 0.490 |  |
|  C. 0.240 |  |
|  D. 0.160 |  |

A study of 600 college students taking Statistics 101 revealed that 54 students received the grade of A. Typically 10% of the class gets an A. The difference between this group of students and the expected value is not significant at the 0.05 level. What does this mean in this case?

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|  A. The probability that the difference occurred due to chance is less than 0.05. |  |
|  B. The probability of getting an A is 10% and only 9% got an A in this study. The difference is less than 5% so it is not significant. |  |
|  C. There is not enough information to make any conclusion. |  |
|  D. The probability that the difference occurred due to chance is more than 0.05. |  |

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| **Question 14 of 40** | 0.0/ 2.5 Points |

A study of students taking Statistics 101 was done. Four hundred students who studied for more than 10 hours averaged a B. Two hundred students who studied for less than 10 hours averaged a C. This difference was significant at the 0.01 level. What does this mean?

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|  A. The probability that the difference was due to chance alone is greater than 0.01. |  |
|  B. There is less than a 0.01 chance that the first group’s grades were better by chance alone. |  |
|  C. The improvement was due to the fact that more people studied. |  |
|  D. There is not enough information to make any conclusion. |  |

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| **Question 15 of 40** | 0.0/ 2.5 Points |

In a poll, respondents were asked whether they had ever been in a car accident. 220 respondents indicated that they had been in a car accident and 370 respondents said that they had not been in a car accident. If one of these respondents is randomly selected, what is the probability of getting someone who has been in a car accident? Round to the nearest thousandth.

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|  A. 0.384 |  |
|  B. 0.380 |  |
|  C. 0.373 |  |
|  D. 0.370 |  |

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| **Question 19 of 40** | 0.0/ 2.5 Points |

If you flip a coin three times, the possible outcomes are HHH, HHT, HTH, HTT, THH, THT, TTH, TTT. What is the probability that at least two heads occur consecutively?

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|  A. 1/8 |  |
|  B. 3/8 |  |
|  C. 5/8 |  |
|  D. 6/8 |  |

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| **Question 21 of 40** | 0.0/ 2.5 Points |

A population proportion is to be estimated. Estimate the minimum sample size needed to achieve a margin of error E = 0.01with a 95% degree of confidence.

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|  A. 7,000 |  |
|  B. 8,000 |  |
|  C. 9,000 |  |
|  D. 10,000 |  |

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| **Question 22 of 40** | 0.0/ 2.5 Points |

Among a random sample of 150 employees of a particular company, the mean commute distance is 29.6 miles. This mean lies 1.2 standard deviations above the mean of the sampling distribution. If a second sample of 150 employees is selected, what is the probability that for the second sample, the mean commute distance will be less than 29.6 miles?

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|  A. 0.8849 |  |
|  B. 0.5 |  |
|  C. 0.1131 |  |
|  D. 0.1151 |  |

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| **Question 23 of 40** | 2.5/ 2.5 Points |

A sample of 64 statistics students at a small college had a mean mathematics ACT score of 28 with a standard deviation of 4. Estimate the mean mathematics ACT score for all statistics students at this college. Give the 95% confidence interval.

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|  A. 28.0 to 30.0 |  |
|  B. 25.0 to 27.0 |  |
|  C. 29.0 to 31.0 |  |
|  D. 27.0 to 29.0 |  |

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| **Question 24 of 40** | 0.0/ 2.5 Points |

In a poll of 400 voters in a certain state, 61% said that they opposed a voter ID bill that might hinder some legitimate voters from voting. The margin of error in the poll was reported as 4 percentage points (with a 95% degree of confidence). Which statement is correct?

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|  A. The reported margin of error is consistent with the sample size. |  |
|  B. There is not enough information to determine whether the margin of error is consistent with the sample size. |  |
|  C. The sample size is too small to achieve the stated margin of error. |  |
|  D. For the given sample size, the margin of error should be smaller than stated. |  |

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| **Question 25 of 40** | 0.0/ 2.5 Points |

A random sample of 30 households was selected from a particular neighborhood. The number of cars for each household is shown below. Estimate the mean number of cars per household for the population of households in this neighborhood. Give the 95% confidence interval.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%2023.JPG

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|  A. 1.14 to 1.88 |  |
|  B. 1.12 to 1.88 |  |
|  C. 1.12 to 1.98 |  |
|  D. 1.14 to 1.98 |  |

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| **Question 29 of 40** | 0.0/ 2.5 Points |

Select the best estimate of the correlation coefficient for the data depicted in the scatter diagram.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%2014.JPG

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|  A. 0.60 |  |
|  B. -0.97 |  |
|  C. 0.10 |  |
|  D. 0.60 |  |

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| **Question 30 of 40** | 0.0/ 2.5 Points |

The scatter plot and best-fit line show the relation among the number of cars waiting by a school (y) and the amount of time after the end of classes (x) in arbitrary units. The correlation coefficient is -0.55. Determine the amount of variation in the number of cars not explained by the variation time after school.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%206.JPG

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|  A. 55% |  |
|  B. 70% |  |
|  C. 30% |  |
|  D. 45% |  |

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| **Question 34 of 40** | 0.0/ 2.5 Points |

The graph shows a measure of fitness (y) and miles walked weekly. Identify the probable cause of the correlation.



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|  A. The correlation is coincidental. |  |
|  B. There is a common underlying cause of the correlation. |  |
|  C. There is no correlation between the variables. |  |
|  D. Walking is a direct cause of the fitness. |  |

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| **Question 36 of 40** | 0.0/ 2.5 Points |

Monthly incomes of employees at a particular company have a mean of $5954. The distribution of sample means for samples of size 70 is normal with a mean of $5954 and a standard deviation of $259. Suppose you take a sample of size 70 employees from the company and find that their mean monthly income is $5747. How many standard deviations is the sample mean from the mean of the sampling distribution?

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|  A. 0.8 standard deviations above the mean |  |
|  B. 0.8 standard deviations below the mean |  |
|  C. 7.3 standard deviations below the mean |  |
|  D. 207 standard deviations below the mean |  |

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| **Question 37 of 40** | 0.0/ 2.5 Points |

A researcher wishes to estimate the proportion of college students who cheat on exams. A poll of 560 college students showed that 27% of them had, or intended to, cheat on examinations. Find the 95% confidence interval.

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|  A. 0.2323 to 0.3075 |  |
|  B. 0.2325 to 0.3075 |  |
|  C. 0.2325 to 0.3185 |  |
|  D. 0.2323 to 0.3185 |  |

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| **Question 38 of 40** | 0.0/ 2.5 Points |

The scatter plot and best-fit line show the relation among the number of cars waiting by a school (y) and the amount of time after the end of classes (x) in arbitrary units. The correlation coefficient is -0.55. Use the line of best fit to predict the number of cars at time 4 after the end of classes.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%2013.JPG

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|  A. 7.0 |  |
|  B. 6.0 |  |
|  C. 8.0 |  |
|  D. 3.5 |  |

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| **Question 39 of 40** | 0.0/ 2.5 Points |

The scatter plot and best-fit line show the relation among the data for the price of a stock (y) and employment (x) in arbitrary units. The correlation coefficient is 0.8. Predict the stock price for an employment value of 6.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%207.JPG

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|  A. 8.8 |  |
|  B. 6.2 |  |
|  C. 8.2 |  |
|  D. None of the values are correct |  |

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| **Question 40 of 40** | 0.0/ 2.5 Points |

Which graph has two groups of data, correlations within each group, but no correlation among all the data?

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|  A.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%203%20_A_.JPG |  |
|  B.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%203%20_B_.JPG |  |
|  C.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%203%20_C_.JPG |  |
|  D.https://study.ashworthcollege.edu/access/content/group/8ef8b2f7-197d-41de-a4c4-db81a717c013/v9/Images/Lesson%206%20Exam/MA260%20Lesson%206%20exam%20question%203%20_D_.JPG |  |

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The End!!