**Homework Assignment 1**

**Instructions:** Be sure to record the final answer next to “Answer” and show all your calculation steps or assumptions under “Work.” You can type in your calculations, use the equation tool, or insert images of your handwritten calculations.

The case studies are all at the end of the book. To find them, use ctrl+f and search for "case studies", but you could also just find it in the full table of contents for the book. For example, here is the link to the ADHD case study:  <http://onlinestatbook.com/2/case_studies/adhd.html>

Remember to add your last and first name to the end of the file name and upload your answers here (e.g., FILENAME\_LASTNAME.docx) before submitting.

**\*Page numbers are approximate**

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| **Problem Number** | **Problem and Solution** |
| #1  (2 pts) | Lane et al., Chapter. 1, Exercise 3, Page 62  If you are told **only** that you scored in the 80th percentile, do you know from this description exactly how it was calculated? Explain your answer. |
|  | Answer:  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #2  (2 pts) | Lane et al., Chapter. 1, Exercise 10, Page 63 |
|  | Answer:  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #3  (2 pts) | Lane et al., Chapter. 1, Exercise 17, Page 64  Question from the ADHD Treatment (AT) study. **To find the information on this study, please go to the “Case Studies” section (see instructions on first page).**  What is the independent variable of this experiment? How many levels does it have? |
|  | Answer:  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #4  (2 pts) | Lane et al., Chapter. 1, Exercise 18, Page 64  Question from the ADHD Treatment (AT) study. **To find the information on this study, please go to the “Case Studies” section (see instructions on first page).**  What is the dependent variable? On what scale (nominal, ordinal, interval,  ratio) was it measured? |
|  | Answer:  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #5  (2 pts) | Lane et al., Chapter. 1, Exercise 11, Page 63  11. Which of the frequency polygons has a large positive skew?  Which has a large negative skew? |
|  | Answer:  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #6  (2 pts) | Illowski et al., Chapter. 1, Exercise 50 and 52, Page 53  Use the following information to answer #50 and #52 exercises: A Lake Tahoe Community College instructor is interested in the mean number of days Lake Tahoe Community College math students are absent from class during a quarter. |
|  | Answer:  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #7  (2 pts) | Illowski et al., Chapter. 1, Exercise 72, Page 54 |
|  | Answer:  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #8  (2 pts) | Illowski et al., Chapter. 1, Exercise 80, Page 56 |
|  | Answer:  a.   |  |  |  |  | | --- | --- | --- | --- | | # of Courses | Frequency | Relative Frequency | Cumulative Relative Frequency | | 1 | 30 | 0.6 |  | | 2 | 15 |  |  | | 3 |  |  |  |   b.  c.  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |

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| #9  (2 pts) | Illowski et al., Chapter. 1, Exercise 84, Page 57 |
|  | Answer:  Fill out the table first and then answer questions a-e.   |  |  |  |  | | --- | --- | --- | --- | | Age | Frequency | Relative Frequency | Cumulative Relative Frequency | | 40-44 | 3 |  |  | | 45-49 | 11 |  |  | | 50-54 | 13 |  |  | | 55-59 | 16 |  |  | | 60-64 | 10 |  |  | | 65-69 | 6 |  |  | | 70-74 | 1 |  |  |   a.  b.  c.  d.  e.  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |
| #10  (2 pts) | Illowski et al., Chapter. 1, Exercise 90, Page 59 |
|  | Answer:  a.  b.  c.  Work:  **Please include a word and/or calculation explanation here! If you leave this blank I will have to give you 0 points for this question, even if your answers are correct.** |