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## MAT 300 – Assignments and Rubrics

**Assignment 1: Bottling Company Case Study**

Due Week 10 and worth 140 points

Imagine you are a manager at a major bottling company. Customers have begun to complain that the bottles of the brand of soda produced in your company contain less than the advertised sixteen (16) ounces of product. Your boss wants to solve the problem at hand and has asked you to investigate. You have your employees pull thirty (30) bottles off the line at random from all the shifts at the bottling plant. You ask your employees to measure the amount of soda there is in each bottle. **Note:** Use the data set provided by your instructor to complete this assignment.

Bottle Number	Ounces	Bottle Number	Ounces	Bottle Number	Ounces
1	14.5	11	15	21	14.1
2	14.6	12	15.1	22	14.2
3	14.7	13	15	23	14
4	14.8	14	14.4	24	14.9
5	14.9	15	15.8	25	14.7
6	15.3	16	14	26	14.5
7	14.9	17	16	27	14.6
8	15.5	18	16.1	28	14.8
9	14.8	19	15.8	29	14.3
10	15.2	20	14.5	30	14.3

Write a two to three (2-3) page report in which you:

1. Calculate the mean, median, and standard deviation for ounces in the bottles.
2. Construct a 95% Confidence Interval for the ounces in the bottles.
3. Conduct a hypothesis test to verify if the claim that a bottle contains less than sixteen (16) ounces is supported. Clearly state the logic of your test, the calculations, and the conclusion of your test.
4. Provide the following discussion based on the conclusion of your test:
  - a. If you conclude that there are less than sixteen (16) ounces in a bottle of soda, speculate on three (3) possible causes. Next, suggest the strategies to avoid the deficit in the future.

Or

  - b. If you conclude that the claim of less soda per bottle is not supported or justified, provide a detailed explanation to your boss about the situation. Include your speculation on the reason(s) behind the claim, and recommend one (1) strategy geared toward mitigating this issue in the future.
5. Use at least two (2) quality resources in this assignment. **Note:** Wikipedia and similar websites do not qualify as quality resources. The body of the paper must have in-text citations that correspond to the references.

Your assignment must follow these formatting requirements:

- Be typed, double spaced, using Times New Roman font (size 12), with one-inch margins on all sides; citations and references must follow APA or school-specific format. Check with your professor for any additional instructions.
- Include a cover page containing the title of the assignment, the student's name, the professor's name, the course title, and the date. The cover page and the reference page are not included in the required assignment page length.



## MAT 300 – Assignments and Rubrics

The specific course learning outcomes associated with this assignment are:

- Calculate measurements of central tendency and dispersal.
- Determine confidence intervals for data.
- Describe the vocabulary and principles of hypothesis testing.
- Discuss application of course content to professional contexts.
- Use technological tools to solve problems in statistics.
- Write clearly and concisely about statistics using proper writing mechanics.

Grading for this assignment will be based on answer quality, logic / organization of the paper, and language and writing skills, using the following rubric.

Points: 140		Assignment 1: Bottling Company Case Study			
Criteria	Unacceptable Below 60% F	Meets Minimum Expectations 60-69% D	Fair 70-79% C	Proficient 80-89% B	Exemplary 90-100% A
1. Calculate the mean, median, and standard deviation for ounces in the bottles. Weight: 15%	Did not submit or incompletely calculated the mean, median, and standard deviation for ounces in the bottles.	Insufficiently calculated the mean, median, and standard deviation for ounces in the bottles.	Partially calculated the mean, median, and standard deviation for ounces in the bottles.	Satisfactorily calculated the mean, median, and standard deviation for ounces in the bottles.	Thoroughly calculated the mean, median, and standard deviation for ounces in the bottles.
2. Construct a 95% Confidence Interval for the ounces in the bottles. Weight: 20%	Did not submit or incompletely constructed a 95% Confidence Interval for the ounces in the bottles.	Insufficiently constructed a 95% Confidence Interval for the ounces in the bottles.	Partially constructed a 95% Confidence Interval for the ounces in the bottles.	Satisfactorily constructed a 95% Confidence Interval for the ounces in the bottles.	Thoroughly constructed a 95% Confidence Interval for the ounces in the bottles.
3. Conduct a hypothesis test to verify if the claim that a bottle contains less than sixteen (16) ounces is supported. Clearly state the logic of your test, the calculations, and the conclusion of your test. Weight: 25%	Did not submit or incompletely conducted a hypothesis test to verify if the claim that a bottle contains less than sixteen (16) ounces is supported. Did not submit or incompletely stated the logic of your test, the calculations, and the conclusion of your test.	Insufficiently conducted a hypothesis test to verify if the claim that a bottle contains less than sixteen (16) ounces is supported. Insufficiently stated the logic of your test, the calculations, and the conclusion of your test.	Partially conducted a hypothesis test to verify if the claim that a bottle contains less than sixteen (16) ounces is supported. Partially stated the logic of your test, the calculations, and the conclusion of your test.	Satisfactorily conducted a hypothesis test to verify if the claim that a bottle contains less than sixteen (16) ounces is supported. Satisfactorily stated the logic of your test, the calculations, and the conclusion of your test.	Thoroughly conducted a hypothesis test to verify if the claim that a bottle contains less than sixteen (16) ounces is supported. Thoroughly stated the logic of your test, the calculations, and the conclusion of your test.
4a. If you conclude that there are less than sixteen (16) ounces in a bottle of soda, speculate on three (3) possible causes. Did not	Did not submit or incompletely speculated on three (3) possible causes. Did not	Insufficiently speculated on three (3) possible causes.	Partially speculated on three (3) possible causes.	Satisfactorily speculated on three (3) possible causes.	Thoroughly speculated on three (3) possible causes.

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possible causes. Next, suggest the strategies to avoid the deficit in the future.  Or  4b. If you conclude that the claim of less soda per bottle is not supported or justified, provide a detailed explanation to your boss about the situation. Include your speculation on the reason(s) behind the claim, and recommend one (1) strategy geared toward mitigating this issue in the future.  Weight: 15%	submit or incompletely suggested the strategies to avoid the deficit in the future.  Or  Did not submit or incompletely provided a detailed explanation to your boss about the situation. Did not submit or incompletely included your speculation on the reason(s) behind the claim, and did not submit or incompletely recommended one (1) strategy geared toward mitigating this issue in the future.	Insufficiently suggested the strategies to avoid the deficit in the future.  Or  Insufficiently provided a detailed explanation to your boss about the situation. Insufficiently included your speculation on the reason(s) behind the claim, and insufficiently recommended one (1) strategy geared toward mitigating this issue in the future.	Partially suggested the strategies to avoid the deficit in the future.  Or  Partially provided a detailed explanation to your boss about the situation. Partially included your speculation on the reason(s) behind the claim, and partially recommended one (1) strategy geared toward mitigating this issue in the future.	Satisfactorily suggested the strategies to avoid the deficit in the future.  Or  Satisfactorily provided a detailed explanation to your boss about the situation. Satisfactorily included your speculation on the reason(s) behind the claim, and satisfactorily recommended one (1) strategy geared toward mitigating this issue in the future.	Thoroughly suggested the strategies to avoid the deficit in the future.  Or  Thoroughly provided a detailed explanation to your boss about the situation. Thoroughly included your speculation on the reason(s) behind the claim, and thoroughly recommended one (1) strategy geared toward mitigating this issue in the future.
5. Writing / Support for ideas Weight: 5%	Never uses reasons and evidence that logically support ideas.	Rarely uses reasons and evidence that logically support ideas.	Partially uses reasons and evidence that logically support ideas.	Mostly uses reasons and evidence that logically support ideas.	Consistently uses reasons and evidence that logically support ideas.
6. Writing / Grammar and mechanics Weight: 5%	Serious and persistent errors in grammar, spelling, and punctuation.	Numerous errors in grammar, spelling, and punctuation.	Partially free of errors in grammar, spelling, and punctuation.	Mostly free of errors in grammar, spelling, and punctuation.	Free of errors in grammar, spelling, and punctuation.
7. Writing and Information Literacy / Integration of Sources Weight: 5%	Serious errors in the integration of sources, such as intentional or accidental plagiarism or failure to use in-text citations.	Sources are rarely integrated using effective techniques of quoting, paraphrasing, and / or summarizing, using in-text citations.	Sources are partially integrated using effective techniques of quoting, paraphrasing, and / or summarizing, using in-text citations.	Sources are mostly integrated using effective techniques of quoting, paraphrasing, and / or summarizing, using in-text citations.	Sources are consistently integrated using effective techniques of quoting, paraphrasing, and / or summarizing, using in-text citations.
8. Information Literacy / Crediting Sources in APA Weight: 5%	Lack of citations and / or lack of reference section and / or citations don't correspond to listed references.	In-text citations and references are given, but not in APA format.	Partially shows correct (or approximately correct) use of in-text citations, with matching references using APA format.	Mostly shows correct use of in-text citations with matching references using APA format.	Consistently shows correct use of in-text citations with matching references using APA format.



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9. Information Literacy / Research Weight: 5%	No references or the quality of the references is unacceptable.	Too few references and / or references are of poor quality.	Number of sources is less than expected and / or the quality of one (1) of the sources is questionable.	Number of sources is sufficient (two [2] or more) and the quality of sources is mostly good.	Number of sources is sufficient (two [2] or more) and the quality of sources is good.
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## MAT 300 – Student Notes

### Weekly Course Schedule

The purpose of the course schedule is to give you, at a glance, the required preparation, activities, and evaluation components of your course. For more information about your course, whether on-ground or online, access your online course shell.

The expectations for a 4.5 credit hour course are for students to spend 13.5 hours in weekly work. This time estimate includes preparation, activities, and evaluation regardless of the delivery mode.

### Instructional Materials

In order to be fully prepared, obtain a copy of the required textbooks and other instructional materials prior to the first day of class. When available, Strayer University provides a link to the first three (3) chapters of your textbook(s) in eBook format. Check your online course shell for availability.

Review the online course shell or check with your professor to determine whether Internet-based assignments and activities are used in this course.

Strayer students are encouraged to purchase their course materials through our designated bookstore MBS Direct. <http://bookstore.mbsdirect.net/strayer.htm>. If a lab is required for the course, MBS Direct is the only vendor that sells the correct registration code so that Strayer students may access labs successfully.

### Discussions

To earn full credit in an online threaded discussion, students must have one original post and a minimum of one other post per discussion thread.

Please note: Material in the online class will be made available on the previous Thursday. As it is always possible that students could lose their work due to unforeseen circumstances, it is a best practice to routinely save a working draft in a separate file before posting in the course discussion area.

Professors hold discussions during class time for on-ground students. Check with your professor if any additional discussion participation is required in the online course shell outside of class hours.

### Tests

Tests (quizzes, midterm and final exams, essay exams, lab tests, etc.) are available for student access and completion through the online course shell. Check the online course shell to determine how students are expected to take the tests. Do not change these questions or their point values in any way. This disrupts the automated grade book preset in the online course shell.

- Online students are to complete the test by Monday 9:00 a.m. Details regarding due dates are posted in the Blackboard Calendar tool.
- On-ground students are to complete the tests after the material is covered and before the next class session.

### Assignments

A standardized performance grading rubric is a tool your professor will use to evaluate your written assignments. Review the rubric before submitting assignments that have grading rubrics associated with them to ensure you have met the performance criteria stated on the rubric.

Grades are based on individual effort. There is no group grading; however, working in groups in the online or on-ground classroom is acceptable.



## MAT 300 – Student Notes

Assignments for online students are always submitted through the online course shell. On-ground professors will inform students on how to submit assignments, whether in paper format or through the online course shell.

### Resources

The Resource Center navigation button in the online course shell contains helpful links. Strayer University Library Resources are available here as well as other important information. You should review this area to find resources and answers to common questions.

Technical support is available for the following:

- For **technical questions**, please contact Strayer Online Technical Support by logging in to your iCampus account at <https://icampus.strayer.edu/login> and submitting a case under "Student Center," then "Submit Help Ticket." If you are unable to log in to your iCampus account, please contact Technical Support via phone at (877) 642-2999.
- For **concerns with your class**, please access the Solution Center by logging in to your iCampus account at <https://icampus.strayer.edu/login> and submitting a case under "Student Center," then "Submit Help Ticket." If you are unable to log in to your iCampus account, please contact the IT Help Desk at (866) 610-8123 or at <mailto:IThelpdesk@Strayer.edu>.

Turnitin.com is an optional online tool to assess the originality of student written work. Check with your professor for access and use instructions.

The **Strayer Policies** link on the navigation bar in the online course shell contains academic policies. It is important that students be aware of these policies.



## MAT 300 – Statistics

(Prerequisite: MAT 104)

### COURSE DESCRIPTION

This course examines the principles of probability and of descriptive and inferential statistics. Topics include probability concepts, measures of central tendency, normal distributions, and sampling techniques. The application of these principles to simple hypothesis testing methods and to confidence intervals is also covered. The application of these topics in solving problems encountered in personal and professional settings is also discussed.

### INSTRUCTIONAL MATERIALS

#### Required Resources

ALEKS Access Code (bundled with course text when purchased from MBS Direct Bookstore)

Bluman, A. G. (2013). *Elementary statistics: a brief version* (6th ed.). New York, NY: McGraw-Hill.

**Note:** Course materials for this class must be purchased from MBS Direct Bookstore at <http://bookstore.mbsdirect.net/strayer.htm>

#### Supplemental Resources

Hand, D. J. (2006). *Statistics: a very short introduction*. Oxford, UK: Oxford University Press.

Rumsey, D. (2011). *Statistics for dummies* (2nd ed.). Hoboken, NJ: Wiley Publishing.

Standard Normal Distribution Table. (2012). Retrieved from <http://www.mathsisfun.com/data/standard-normal-distribution-table.html>

Statistics Calculator Free App for your Smartphone, created by Christian Gollner. Retrieved from <https://play.google.com/store/apps/details?id=com.cgollner&hl=en>

### COURSE LEARNING OUTCOMES

1. Describe the differences between the various types of data.
2. Apply various descriptive graphical techniques.
3. Calculate measurements of central tendency and dispersal.
4. Solve problems using probability, conditional probability, and counting principles.
5. Solve problems using discrete probability distributions, including the binomial probability distribution.
6. Solve problems using the normal frequency distribution.
7. Determine confidence intervals for data.
8. Describe the vocabulary and principles of hypothesis testing.
9. Apply linear regression to problems.
10. Conduct ANOVA and goodness of fit tests.
11. Discuss application of course content to professional contexts.
12. Use technological tools to solve problems in statistics.
13. Write clearly and concisely about statistics using proper writing mechanics.





## MAT 300 – Statistics

### WEEKLY COURSE SCHEDULE

The standard requirement for a 4.5 credit hour course is for students to spend 13.5 hours in weekly work. This includes preparation, activities, and evaluation regardless of delivery mode.

Week	Preparation, Activities, and Evaluation	Points
1	<p>Preparation</p> <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 1: The Nature of Probability and Statistics</li> </ul> </li> <li>• e-Activity <ul style="list-style-type: none"> <li>◦ Statistician Nate Silver became famous in 2008 when he correctly predicted the Presidential Election in 49 of the 50 states. Mr. Silver has done more than just predicting elections. Visit Nate Silver's blog, located at <a href="http://fivethirtyeight.blogs.nytimes.com/">http://fivethirtyeight.blogs.nytimes.com/</a>, and read one (1) blog entry that is related to one (1) of this week's topics. Be prepared to discuss.</li> </ul> </li> </ul> <p>Activities</p> <ul style="list-style-type: none"> <li>• Discussions</li> </ul> <p>Evaluation</p> <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	<p>10</p> <p>10</p>
2	<p>Preparation</p> <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 2: Frequency Distributions and Graphs</li> </ul> </li> <li>• e-Activity <ul style="list-style-type: none"> <li>◦ Visit one (1) of the following newspaper's Websites: <i>Wall Street Journal</i>, <i>Washington Post</i>, <i>USA Today</i>, or <i>New York Times</i>. Select a line graph, pie chart, or bar chart on the Website. Be prepared to discuss.</li> </ul> </li> </ul> <p>Activities</p> <ul style="list-style-type: none"> <li>• Discussions</li> </ul> <p>Evaluation</p> <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	<p>10</p> <p>10</p>
3	<p>Preparation</p> <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 3: Data Description</li> </ul> </li> <li>• e-Activity <ul style="list-style-type: none"> <li>◦ Read the article titled, "Auto Insurance Costs: Where Does Your State Rank?" located at <a href="http://www.cbsnews.com/3301-505145_162-40542496/auto-insurance-costs-where-does-your-state-rank/">http://www.cbsnews.com/3301-505145_162-40542496/auto-insurance-costs-where-does-your-state-rank/</a>. Be prepared to discuss.</li> </ul> </li> </ul> <p>Activities</p> <ul style="list-style-type: none"> <li>• Discussions</li> </ul> <p>Evaluation</p> <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	<p>10</p> <p>10</p>



# MAT 300 – Statistics

4	<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 4: Probability and Counting Rules</li> </ul> </li> <li>• e-Activities <ul style="list-style-type: none"> <li>◦ Use the Internet to research the basic lottery system in your state. For example, the state of Ohio has a Pick 5 game where a customer selects 5 single-digit numbers (0-9). Each number can be selected again meaning 9-9-9-9 is a possible winner. Be prepared to discuss.</li> <li>◦ Use the Internet to research a state which posts the odds of winning a lottery. Be prepared to discuss.</li> </ul> </li> </ul> <p><b>Activities</b></p> <ul style="list-style-type: none"> <li>• Discussions</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	10 10
5	<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 5: Discrete Probability Distributions</li> </ul> </li> </ul> <p><b>Activities</b></p> <ul style="list-style-type: none"> <li>• Discussions</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> <li>• Midterm Exam: Chapters 1 through 4</li> </ul>	10 10 100
6	<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 6: The Normal Distribution</li> </ul> </li> <li>• e-Activity <ul style="list-style-type: none"> <li>◦ Go to the baseball reference Website, located at <a href="http://www.baseball-reference.com/teams/">http://www.baseball-reference.com/teams/</a>, select a baseball team from the list of teams, and analyze the team's historical win percentage. Be prepared to discuss.</li> </ul> </li> </ul> <p><b>Activities</b></p> <ul style="list-style-type: none"> <li>• Discussions</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	10 10
7	<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 7: Confidence Intervals and Sample Size</li> </ul> </li> </ul> <p><b>Activities</b></p> <ul style="list-style-type: none"> <li>• Discussions</li> </ul> <p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	10 10
8	<b>Preparation</b>	



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	<ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 8: Hypothesis Testing</li> </ul> </li> </ul> Activities <ul style="list-style-type: none"> <li>• Discussions</li> </ul> Evaluation <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	10 10
9	Preparation <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 9: Testing the Difference Between Two Means, Two Proportions, and Two Variances</li> <li>◦ Chapter 10: Correlation and Regression</li> </ul> </li> </ul> Activities <ul style="list-style-type: none"> <li>• Discussions</li> </ul> Evaluation <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> </ul>	10 10
10	Preparation <ul style="list-style-type: none"> <li>• Reading(s) <ul style="list-style-type: none"> <li>◦ Chapter 11: Chi-Square and Analysis of Variance (ANOVA)</li> </ul> </li> </ul> Activities <ul style="list-style-type: none"> <li>• Discussions</li> </ul> Evaluation <ul style="list-style-type: none"> <li>• ALEKS Time Spent</li> <li>• Assignment 1: Bottling Company Case Study</li> </ul>	10 10 140
11	Preparation <ul style="list-style-type: none"> <li>• Reading(s): None</li> </ul> Activities <ul style="list-style-type: none"> <li>• Discussions</li> </ul> Evaluation <ul style="list-style-type: none"> <li>• ALEKS Pie Completion</li> <li>• Final Exam: Chapters 5 through 11</li> </ul>	10 400 150

## GRADING SCALE – GRADUATE

Assignment	Total Points	% of Grade
ALEKS Pie Completion (Note: The primary goal of this class is for you to complete the entire pie by the end of the term. Points for pie completion will be added to your score at the end of the term.)	400	40%
ALEKS Time Spent (A minimum of 5 hours per week for 10 weeks at 10 points each 2 points per hour)	100	10%
Assignment 1: Bottling Company Case Study	140	14%
Midterm Exam (open book, 5-hour time limit, 2 attempts only)	100	10%



# STRAYER UNIVERSITY

## MAT 300 – Statistics

(20 problems, worth 5 points apiece)		
Final Exam (open book, 5-hour time limit, 2 attempts only) (25 problems at 6 points each)	150	15%
Participation (10 points per week)	110	11%
Totals	1,000	100%

Points	Percentage	Grade
900 – 1,000	90% – 100%	A
800 – 899	80% – 89%	B
700 – 799	70% – 79%	C
600 – 699	60% – 69%	D
Below 600	Below 60%	F



## MAT 300 – Assignments and Rubrics

### ALEKS Pie Completion

The primary goal of this class is for you to complete the entire pie by the end of the term. Points for pie completion will be added to your score at the end of the term.

### ALEKS Discussion Thread Rubric for Weeks 1-10 (Suggested)

Category	Below minimum expectations 0 pts.	Acceptable 1 pt.	Exemplary 2 pts.
Primary Post addresses Part 1 of question	Did not answer the question or the answer contained significant errors or omissions.	Answered the question, but the answer was not complete or lacked explanations and examples.	Answered the question completely with significant explanations and examples.
Primary Post addresses Part 2 of question	Did not answer the question or the answer contained significant errors or omissions.	Answered the question, but the answer was not complete or lacked explanations and examples.	Answered the question completely with significant explanations and examples.
Reply to a fellow student	No reply or the reply is too brief or otherwise not substantive enough for credit.	The reply is sufficient for partial credit, but less than substantive or contains errors.	Provided a reply that is substantive and relevant.
Second reply to a fellow student	No reply or the reply is too brief or otherwise not substantive enough for credit.	The reply is sufficient for partial credit, but less than substantive or contains errors.	Provided a reply that is substantive and relevant.
Category	Below minimum expectations 0 pts.		Meets requirements 2 pts.
At least three (3) posts over at least two (2) days	Did not meet requirements		At least three (3) posts are given before the due date. Posts are made on at least two (2) days.



## MAT 300 – Assignments and Rubrics

### Discussion Thread Rubric for Week 11 (Suggested)

Category	Below minimum expectations 0 pts.	Acceptable 1 pt.	Exemplary 2 pts.
Primary Post addresses Part 1 of question.	Did not answer the question or the answer contained significant errors or omissions.	Answered the question, but the answer was not complete or lacked explanations and examples.	Answered the question completely with significant explanations and examples.
Primary Post addresses Part 2 of question	Did not answer the question or the answer contained significant errors or omissions.	Answered the question, but the answer was not complete or lacked explanations and examples.	Answered the question completely with significant explanations and examples.
Reply to a fellow student	No reply or the reply is too brief or otherwise not substantive enough for credit.	The reply is sufficient for partial credit, but less than substantive or contains errors.	Provided a reply that is substantive and relevant.
Second reply to a fellow student	No reply or the reply is too brief or otherwise not substantive enough for credit.	The reply is sufficient for partial credit, but less than substantive or contains errors.	Provided a reply that is substantive and relevant.
Category	Below minimum expectations 0 pts.		Meets requirements 3 pts.
At least three (3) posts over at least two (2) days	Did not meet requirements		At least three (3) posts are given before the due date. Posts are made on at least two (2) days.

### ALEKS

**Emphasis on Lab Work.** On-ground sections of the course will be taught in a computer lab, with three (3) hours of lab time using ALEKS for every one (1) hour of traditional instruction. Thus, students in an on-ground section of the course will log about three (3) of the required five (5) weekly hours in ALEKS during class. To get full credit for the ALEKS participation points, on-ground students will have to put in two (2) additional hours using ALEKS outside of class. Online students will also utilize ALEKS in the same or similar manner. All students will start the term by taking a comprehensive ALEKS assessment to identify where they need to focus their efforts. As you master each assigned topic, your progress will be plotted on a pie chart. Your goal will be to fill in the entire pie. Forty (40) percent of your final grade will be based on how much of the pie you fill in.

**Weekly Lab Requirement.** Students are expected to spend at least five (5) hours per week working with ALEKS. The instructor will be able to see how much time you've spent in ALEKS and what topics you've worked on. Weekly ALEKS time will count toward 10% of your final grade. If you work in ALEKS for five (5) or more hours, you will earn ten (10) points. If you spend less time working in ALEKS, you'll receive partial credit in direct proportion to the time you spend, at 2.0 points per hour.



## MAT 300 – Assignments and Rubrics

Please note that five (5) hours is the minimum requirement each week. Generally, the more time you can spend working on the pie, the more you will progress. We recommend that students spend at least six (6) hours each week in ALEKS.

If you fill in the ALEKS pie early, your instructor will provide instructions on how to access an expansion pie with advanced topics covered in the next math course, so that you can continue to learn new material while meeting the ALEKS lab requirement.

Pacing and Weekly Objectives. While each student will work through a unique ALEKS pathway, this course is being taught in the context of an 11-week term. To assist students in pacing their efforts, weekly objectives have been established. These appear as white dots on your pie chart. Halfway through the term, all students will complete a Midterm Exam, based on the weekly objectives for the first four (4) weeks.

Repeating Exams. Students may repeat the Midterm and the Final Exam one (1) time each. Please note that students who score poorly on the Midterm Exam should consult their instructor before taking the exam a second time. Typically, students who score poorly on the Midterm Exam have not completed at least sixty (60) topics in their ALEKS pie. Those in this situation are advised to complete at least sixty (60) topics in the ALEKS pie before retaking the Midterm Exam.

Discussion Requirement. Students taking the course on-ground will receive points for class participation and attendance, based on the criteria set by the instructor. Students taking the course online must participate in the online discussion boards each week in Blackboard to earn points for discussion. Discussion makes up 10% of the overall final grade.