ALBERTA DISTANCE LEARNING CENTRE
Mathematics 30-3 Online
MAT3793
Unit E Chapter 2 Assignment

Student's Questions and Comments

FOR STUDENT USE ONLY

(if label is missing or incorrect)
Student ID:

_____

Please use the pre-printed label for this course and Assignment

Name

Address

City/Town **Province** **Postal Code**

Apply Assignment Label Here

FOR ADLC USE ONLY

Assigned to

_____

Marked by

_____

Date received

_____

Summary

	Marks Earned	Total Marks	Percent
Lesson 1 - Part B		**10**	
Lesson 2 - Part B		**19**	
Lesson 3 - Part B		**15**	

Teacher's Comments:

_____

Teacher's Signature

NEW September 2018

CANADIAN CATALOGUING IN PUBLICATION DATA

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Mathematics 30-3 Online
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Unit E Chapter 2 Assignment

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For Users of Alberta Distance Learning Centre Courseware
Much time and effort is involved in preparing learning materials and activities that meet curricular expectations as determined by Alberta Education. We ask that you respect our work by honouring copyright regulations.

Alberta Distance Learning Centre website:

http://www.adlc.ca

The Internet can be a valuable source of information. However, because publishing to the Internet is neither controlled nor censored, some content may be inaccurate or inappropriate. Students are encouraged to evaluate websites for validity and to consult multiple sources.

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Statistics and Probability

Submission Instructions

You will submit your assignments online by uploading them to your course in Moodle. Once you log in to your course, you will find more detailed submission instructions provided by your teacher.

Go to this website to learn how to log in to Moodle:
http://quick.adlc.ca/login

If you have further questions about submitting your work, please contact your teacher.

Mathematics 30-3 Online

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Our Pledge to You:

Enrolling in this course is another step toward an Alberta High School Diploma. Everyone at Alberta Distance Learning Centre is committed to helping students achieve their educational goals. We welcome your contact in person or by phone, fax, e-mail, voice mail, or postal mail.

Advice:

Your achievement in this course is determined by your success in the assessments of each unit. Your responses to assignments indicate your understanding of outcomes established by Alberta Education.

- Before responding to the assigned questions, read all relevant directions for the Assignment and instruction in the course materials, including the appropriate Guide for Learning and any other resources provided.
- When you encounter difficulties, re-read the directions for the Assignment and review the relevant instruction in the Guide for Learning.
- If you require further clarification, contact your Alberta Distance Learning Centre teacher for assistance.

Notice:

You have one opportunity to submit each Assignment.

- Only under exceptional circumstances will your ADLC teacher re-assess your work. Therefore, apply significant effort to each Assignment.
- If your final exam mark is vastly different from your Quiz marks, your teacher may apply discretion in determining your course mark.

Format

You are encouraged to **handwrite** your written work.

If you type your work, be sure to follow these guidelines:

- Include your full name and student file number as a document header.
- Double-space your final copy.
- Staple your printed work to this Assignment.

ADLC Plagiarism Policy (ADLC Administrative Policy 60–1)

Plagiarism is the practice of representing someone else's work or ideas as one's own. It is an academically dishonest practice and is detrimental to a student's knowledge and skill development. ADLC takes a progressive approach to plagiarism to educate and correct the behaviour.

All incidents will be documented and are subject to the consequences outlined below:

First Incident	Second Incident	Third Incident
The student is given zero scores on any work suspected of being plagiarized and given the opportunity to resubmit original work.	The student is given zero scores on any work suspected of being plagiarized and is not given the opportunity to resubmit original work. A letter is sent by the principal to parents and school facilitators outlining this administrative practice and the consequences.	The student is removed from the course in which plagiarized work is suspected and notifications are put into the ADLC Student Information System, barring future registration to the course in question. A withdrawal letter is sent by the principal to parents and school facilitators.

Important

While removal from a course is limited to the course in which the third incident has occurred, the preceding steps can occur across different courses. A student who has been found plagiarizing in Course A and held to the First Incident consequences who then plagiarizes in Course B will move to the Second Incident consequences.

Any further occurrences after the Third Incident in any other courses will result in immediate removal from that course. Ongoing occurrences may result in removal from all courses and barring of registration with ADLC.

Sharing of ADLC Work (ADLC Administrative Policy 60–4)

Plagiarism is the practice of representing someone else's work or ideas as one's own. It is a dishonest practice and is damaging to a student's knowledge & skill development. Plagiarism is addressed in ADLC Administrative Policy 60-01.

The sharing of school work, especially after having been marked by ADLC, to students for the purposes of submitting plagiarized work (either paraphrasing or directly copying student work) is dishonest, and this sharing goes against the Alberta School Act's expectation of students to respect school rules and co-operate with how schools offer education to their students.

ADLC prefers to take a progressive approach to the sharing of work with other students, in order to educate and correct the behaviour.

If a student is currently enrolled in any ADLC course and found to be sharing school work, whether from their current course or another, to others, the following will happen:

First Incidence	Second Incidence
The student is informed that their work has been submitted as plagiarized work by another student; a warning is provided that further submissions of such work, from any course, will be grounds for removal from the current course(s).	The student is removed from all active ADLC courses.

If the student is not currently enrolled in any ADLC course and found to be sharing school work with others, they are informed that their work has been submitted as plagiarized work by another student and, as such, further registrations in any ADLC course will not be permitted. The incident will be recorded on the student's file.

Such actions do not limit ADLC to pursue other remedies (actions), either criminal or civil, for the distribution of its copyrighted materials.

Lesson 1 Assignment

Probability of an Event – Part B

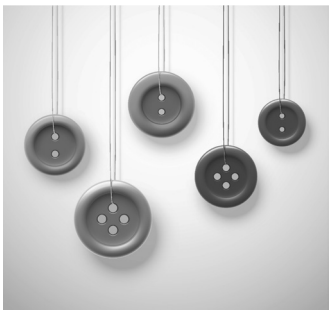
Work slowly and carefully. If you are having difficulty, go back and review the appropriate *Lesson*.

For full marks, show all calculations, steps, and/or explain your answers.

Total marks: 10

(2) 11. An eight-sided die has sides numbered 1 through 8. What is the probability of rolling a 7? Express your answer as a ratio.

(2) 12. A bag contains 5 buttons. Three of the buttons have 2 holes and two of the buttons have 4 holes.



What is the probability of randomly selecting a button with 2 holes? Express your answer as a fraction.

(2) 13. Parham is playing a game that requires him to roll a 1 or a 2 on a six-sided die. What is the probability that Parham will roll a 1 or a 2? Express the probability as a decimal to three decimal places.

(2) 14. In a box, there are eight dimes, two nickels, and three pennies. If a coin is selected randomly, what is the probability that the coin is a nickel? Express your answer as a statement.

(2) 15. Edna buys a ticket for a draw for an iPad®. A total of 250 tickets are sold. What is the probability that Edna will win? Express your answer as a percentage to one decimal place.

Lesson 2 Assignment

Theoretical and Experimental Probability – Part B

Work slowly and carefully. If you are having difficulty, go back and review the appropriate *Lesson*.

For full marks, show all calculations, steps, and/or explain your answers.

Total marks: 19

11. Antoinette rolled a six-sided die 80 times, and ten of the rolls landed on a 4.

(2) a. What is the experimental probability of rolling a 4?

(2) b. What is the theoretical probability of rolling a 4?

(1) c. If the number of trials is increased, what would you expect to happen to the experimental probability of rolling a 4? Explain.

12. Benoit observed that 27 out of 85 patrons at the public library used a computer. The librarian told Benoit that 675 patrons enter the library throughout the day. Answer the following questions based on Benoit's observations.

(2) a. Calculate the probability that a patron would use a computer at the library.

(2) b. How many patrons during the day would be expected to use a computer?

13. Sasha surveys 200 people and asks them their blood type. She recorded the results in a table.

Blood Type	Number of People
A	84
B	18
O	92
AB	6

(2) a. Calculate the probability that a person has type B blood.

(2) b. If 47 people donate blood, approximately how many will have type B blood?

14. In an election, five candidates are running for school trustee. The names of the candidates are Jane Knor, Peter McPhee, Kim Yun, Isaac Unrau, and Patricia Jankowska.

(2) a. What is the theoretical probability that a person would vote for Peter McPhee?

(1) b. Why should the experimental probability, instead of the theoretical probability, be used to predict who will win the election?

(2) c. A poll taken a week before the election found the following results.

Candidate	Votes
Jane Knor	45
Peter McPhee	21
Kim Yun	116
Isaac Unrau	85
Patricia Jankowska	167
Undecided	16

Based on the poll results, calculate the experimental probability that a random person polled would vote for Peter McPhee.

(1) d. If $2\,700$ people vote, predict how many people will vote for Peter McPhee.

Lesson 3 Assignment

Probability and Odds – Part B

Work slowly and carefully. If you are having difficulty, go back and review the appropriate *Lesson*.

For full marks, show all calculations, steps, and/or explain your answers.

Total marks: 15

9. Two dice are rolled. The odds in favour of rolling a sum of 11 on the two dice are $1:17$.

(1) a. Complete the table.

favourable outcomes	
unfavourable outcomes	
total outcomes	

(2) b. Determine the probability that a sum of 11 will be rolled. Express your answer as a fraction.

10. There are 10 pencils, 3 pens, and 14 markers in a bin.

(2) a. Determine the odds in favour of choosing a pen.

(2) b. Determine the odds against choosing a marker.

(2) c. Determine the probability of choosing a pencil. Express your answer as a fraction.

11. Marika is notified that she has won a prize. There are a total of 25 prizes.

Prize	Frequency
$100 cash	1
$25 gift card	8
free movie ticket	14
Fitbit®	2

(2) a. Determine the odds in favour of Marika winning a $100 cash prize or a Fitbit®.

(2) b. Determine the odds against Marika winning a $\$25$ gift card.

(2) 12. The odds against choosing a chocolate chip cookie from a pile of cookies is $2:11$. What is the probability of choosing a chocolate chip cookie? Express your answer as a fraction.

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