

ALBERTA DISTANCE LEARNING CENTRE
Mathematics 30-3 Online
MAT3793
Course Review 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**

City/Town

Province

Postal Code

Address

Name

Apply Assignment Label Here

FOR ADLC USE ONLY

Assigned to

Marked by

Date received

Summary

	Marks Earned	Total Marks	Percent
Unit D		19	
Unit E		22	
Unit F		9	

Teacher's Comments:

Teacher's Signature

CANADIAN CATALOGUING IN PUBLICATION DATA

MAT3793
Mathematics 30-3 Online
ISBN: 1-894811-00-3
Course Review 2 Assignment

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Mathematics 30-3 Online

Course Review 2

Assignment

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

Course Review 2 Assignment

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

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).

Second Incidence

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.

Course Review 2 Assignment

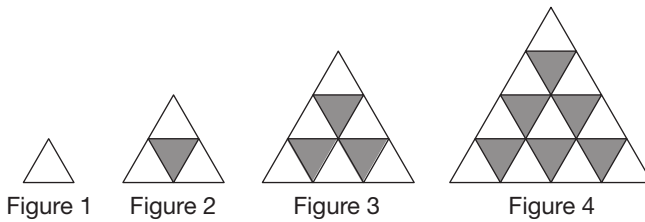
Course Review 2 Assignment

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

Total: 50 marks.

Unit D: Graphing

1. Use the diagrams below to complete *part a* to *part e*.



- 1 a. Complete the table of values.

Figure Number x	Number of White Triangles y
1	
2	
3	
4	
5	
6	

- 1 b. Determine if the set of data represents a linear or non-linear relation. Explain.

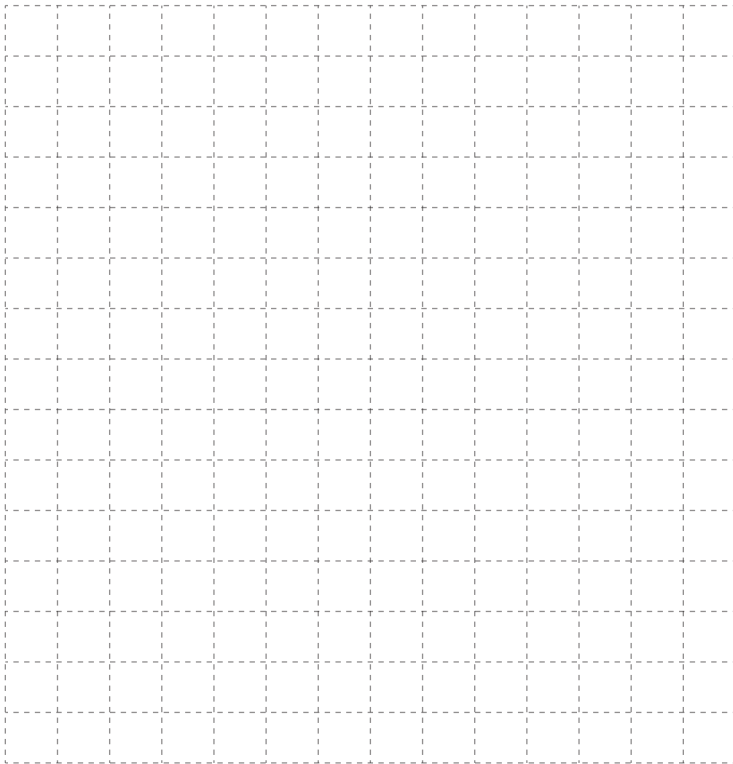
- 1 c. Determine the independent variable and dependent variable for this relation. Explain.

1 d. Is the data represented in the table continuous or discrete data? Explain.

2 e. Graph the data.

Be sure to include

- an appropriate scale
- the labelled axes
- the dependent variable on the y -axis and the independent variable on the x -axis
- a title



Course Review 2 Assignment

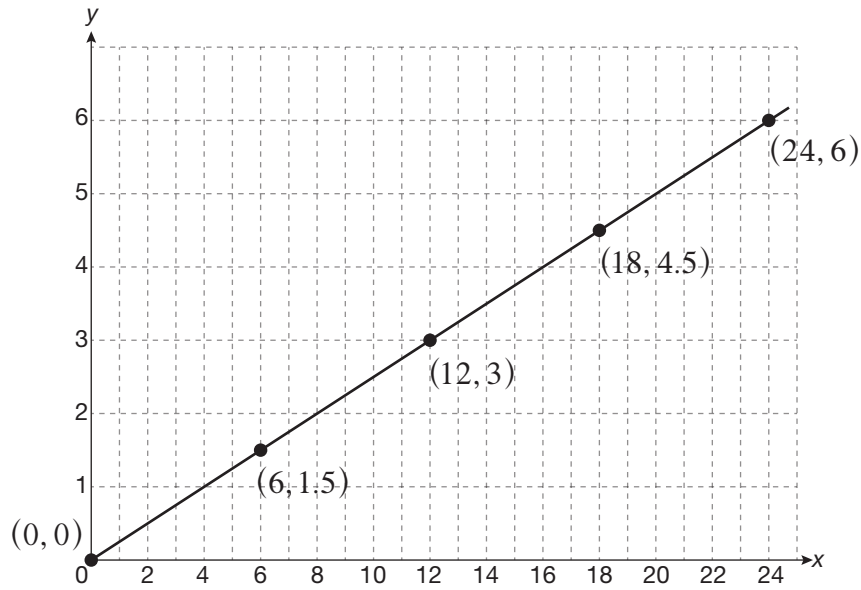
2. Use the table below to answer the following.

x	y
0	0
10	7.5
20	15
30	22.5

- ① a. Explain why the data in the table demonstrates direct variation.

- ① b. Determine the equation of the line.

- 2 3. Use the slope formula to determine the rate of change for the graph. Write an equation for this relation.



Course Review 2 Assignment

- ① 4. Create a table of values for the equation $y = 0.5x$. Use the values $x = 0, 1, 2, 3, 4$.

- ① 5. What is the equation represented by the following table of values?

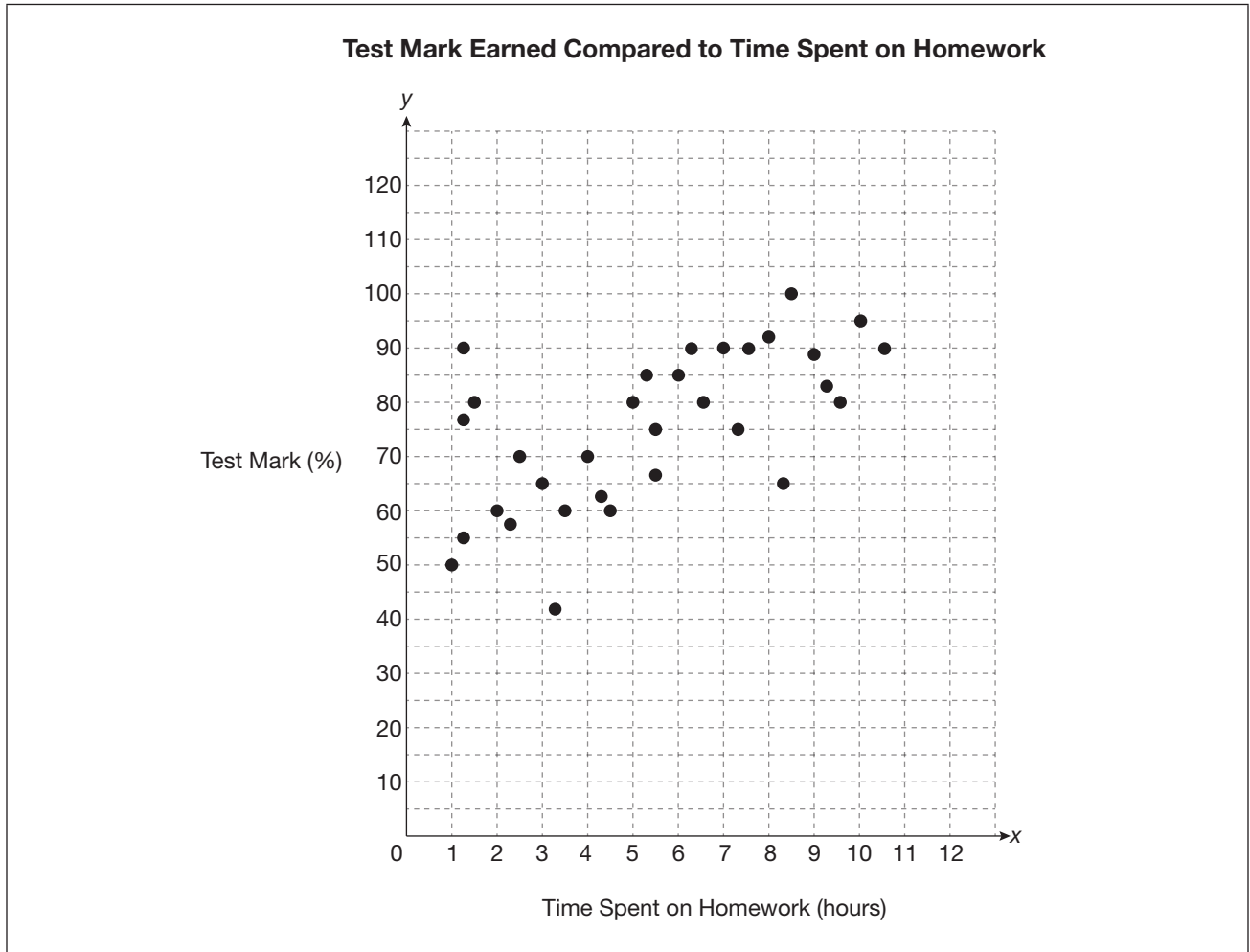
x	y
0	2
1	6
2	10
3	14
4	18

6. The table of values for a set of data is given below.

x	y
0	300
10	550
20	800
30	1 050
40	1 300

- 1 a. Determine the rate of change.
- 1 b. Is the data in the table of values an example of direct variation or partial variation?
- 1 c. Determine the equation of the line represented by the table of values.

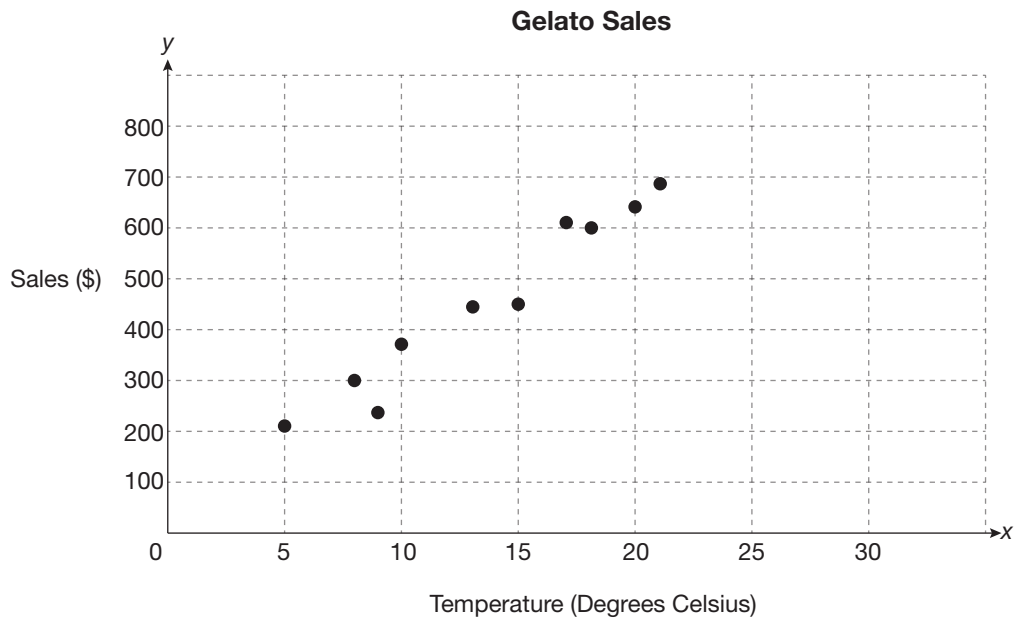
Use the following graph to answer question 7.



1 _____ 7. What type of correlation is displayed in the graph?

- A. a strong, positive correlation
- B. a weak, positive correlation
- C. a weak, negative correlation
- D. a strong, negative correlation

8. An Edmonton gelato store kept track of its gelato sales versus the temperature for two weeks last summer. Their results are displayed in the scatterplot.



①

a. Draw the line of best fit.

b. The temperature was 16°C on May 15th.

①

i. What were the gelato sales for May 15th?

①

ii. Is interpolation or extrapolation used to solve this problem? Explain.

Unit E: Statistics and Probability

9. Determine the required measure of central tendency for the following set of data:
9, 2, 5, 8, 3, 8.

1

a. the mean

1

b. the median

1

c. the mode

10. A fish and wildlife officer records the weights of rainbow trout caught on the Bow River. Their weights to the nearest tenth of a pound are 2.9, 1.5, 2.4, 3.3, 1.8, 4.2, 3.6, 3.7, 1.9, 7.8, 2.4, and 1.7.

1

- a. Is there one or more values that can be considered an outlier? Explain why the value(s) would be an outlier.

2

- b. Calculate a trimmed mean for the data. Round to the nearest tenth.

2

11. Liam made a new video that he posted online. There are 50 videos posted on his site. His new video received more likes than 40 of his other videos. What is the percentile ranking for Liam's latest video?

Course Review 2 Assignment

- ② 12. Kirsten's final exam is worth 35% of her final mark. Kirsten has a mark of 69% in her math course before writing the final exam. What mark must she earn on the final exam to get a final grade of 75%?

Hint: start by finding the weighting of the course work if the final exam is worth 35%.

- 3 13. Place a T in front of the true statements and an F in front of the false statements.
- _____ The mean is the best measure of central tendency to use when the data has extreme values.
- _____ The mode is the best measure of central tendency to use when the most popular value is required.
- _____ The median would be the best measure of central tendency to use for finding the average birth weights of babies born in a given hospital during the month of March.
- _____ The mean is the best measure of central tendency to use when finding the most popular soft drink choice at a cafeteria.
- _____ The mean is the best measure of central tendency to use when finding the approximate salary of players on a professional baseball team.
- _____ The median is the best measure of central tendency to use when finding the middle ranked team in a tournament in terms of number of wins.
14. Janna observed that 18 out of 35 people in her movie theatre bought popcorn. The manager told Janna that a total of 426 people were seeing a movie that night. Answer the following questions based on Janna's observations.
- 2 a. Calculate the probability that a person would buy popcorn.
- 2 b. How many people would be expected to buy popcorn that night?

Course Review 2 Assignment

15. The odds in favour of winning a prize on a scratch and win card are 2:5.

2

a. Find the probability of winning a prize.

1

b. Find the odds against winning a prize.

2

16. There are 26 tiles in a bag. Each letter of the alphabet is represented on a tile. One tile is randomly chosen. Find the probability of choosing an *A* or a *Z*.

Unit F: Finance

- 2 17. Nandini is starting an event planning business. She has contacted a bank regarding a start-up loan of \$5 300.00. The bank Nandini contacted gives her a loan at an annual rate of 5.4% if she makes payments of \$180.00 per month.

The data was entered into the *Number of Monthly Payments Calculator*. The result is shown below.

Number of Monthly Payments Calculator
To use: In the boxes, input the principal, interest rate (as a percentage) and payment amount. Click on Calculate and the Number of Payments will appear.
Principal: \$
Annual Interest Rate: %
Monthly Payment: \$:
Number of Monthly Payments:

How long will it take Nandini to pay off the loan? Express the answer in years.

Course Review 2 Assignment

18. Jabari purchased a car that cost \$24 898.00. He receives a car loan for 7 years at an interest rate of 6.5%. He entered this information into the *Monthly Payment Calculator* and was given the following result:

Monthly Payment Calculator

To use: In the boxes, input the principal, interest rate (as a percentage) and number of payments. Click on Calculate and Payment Amount will appear.

Principal

Annual Interest Rate

Number of Monthly Payments

Monthly Payment

- 1 a. Calculate the total amount that Jabari pays for the car.

- 1 b. Calculate the amount of interest that Jabari pays.

- 2 19. Elianna purchased a car for \$36 877.55. Four years later, the car is worth \$20 300.00. How much value did Elianna's car lose due to depreciation?

- 3 20. There are advantages and disadvantages to buying or leasing a car. For each of the following items, decide whether buying or leasing is the best option. Place a check mark in the column of the best choice.

	Leasing	Buying
ownership		
monthly payments		
customizing		
mileage		
excessive wear and tear		
up-front costs		

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New September 2018