10-12 Mathematics Home Learning Activities			
Learning Activity	**Time**	**Instructions**	**Considerations**
Compare and contrast two math concepts using a Venn diagram or graphic organizer	Up to 30-45 Minutes per day until complete	Possible concepts to explore: ● Independent variable vs. dependent variable ● Factor vs. term ● Equation vs. function vs. expression	
Redo Previous Assessment task.	Up to 30-45 Minutes per day until complete	Redo a test or assignment that your teacher gave back to you.	Focus on questions that were correct so that you are reinforcing learning.
Try 5 practice problems from the unit/chapter you studied last.	Up to 30-45 Minutes per day until complete	Questions may be found - By searching online - On worksheets handed out by teacher - In the course textbook	

Create your own review sheet for a concept.
You may also want to create the corresponding answer key.
	Up to 30-45 Minutes per day until complete	These are important intermediate math concepts you may wish to choose for your learning activity:
		
		● Fractions - simplifying and adding, subtracting, multiplying, and dividing fractions with like or unlike denominators.
		● The distributive property to multiply an expression by a negative value.
		● Order of operations - BEDMAS
		● Exponent laws
		● Manipulation/rearrangement of an equation:
		  ○ Given a value for the independent variable (usually x), solving for the dependent variable (usually y). – generally easier
		  ○ Given a value for the dependent variable (usually y), solving for the independent variable (usually x). - generally more difficult
		● Read and write inequality statements.
		● Triangle geometry - acute, equilateral, isosceles, obtuse, and scalene.
		
		These are important grade 10 (MAT 421A) concepts you may wish to choose for your learning activity:
		
		● Square of a binomial.
		● Graph of a line in slope-intercept form (y=mx+b).

Connect with a classmate via technology and challenge them to a daily math problem.	Up to 30-45 Minutes per day until complete		

		Significance of slope (m) and y-intercept (b).
		● Factorization of polynomials:
		  ○ Greatest Common Factor (GCF)
		  ○ Short Trinomials (ST)
		  ○ Long Trinomials (LT)
		  ○ Perfect Square Trinomial (PST)
		  ○ Difference of Squares (DoS)
		
		Websites that may be helpful:
		http://patrickjmt.com/
		https://www.khanacademy.org/math/	

Math Journal/Learning Log	Up to 30-45 Minutes per day until complete	Create a math journal/learning log entry. You may wish to respond to or adapt one of the following prompts: ● Define a function in your own words. ● Write a paragraph about a graph in the news. ● How do you know that 3/7 is greater than 2/5? Explain your thinking. ● Write everything you know about triangles. Try to include the words 'scalene'. 'acute'. 'obtuse', 'isosceles', and 'equilateral'. ● Write as many examples of linear equations in real life that you can think of in five minutes. Adapted from: https://files.eric.ed.gov/fulltext/ED544239.pdf	
Visit CEMC	Up to 30-45 Minutes per day until complete	The Centre for Education in Mathematics and Computing posts daily activities targeting grade 9-12 students.	Use this shortlink to access the CEMC site: https://bit.ly/3bjik06
Create a personal budget	Up to 30-45 Minutes per day until complete	● Identify income and expenses that should be included in a personal budget. ● Explain considerations that must be made when developing a budget (e.g., prioritizing, recurring and unexpected expenses) ● Modify a budget to achieve a set of personal goals.	
Prepare an income tax return	Up to 30-45 Minutes per day until complete	● Prepare an income tax for yourself or for a single, employed person with no dependents (real or imaginary).	
Play Math-Related Games	Up to 30-45 Minutes per day until complete	Some examples of games are: Sudoku, Cryptoquotes, KenKen, Magic Squares, Logic Puzzles, Chess, Cribbage, Kakuro, Nim, etc.	Playing these games helps develop spatial awareness and logical reasoning.