Welcome to Pre-calculus 11!

Throughout this course, you will explore four Big Ideas, Content and Curricular Competencies as set by the BC Curriculum [https://curriculum.gov.bc.ca/curriculum/mathematics/11/pre-calculus]. The four Big Ideas are:

- Algebra allows us to **generalize** relationships through abstract thinking.
- The meanings of, and **connections** between, operations extend to powers, radicals, and polynomials.
- Quadratic **relationships** are prevalent in the world around us.
- Trigonometry involves using **proportional reasoning** to solve **indirect measurement** problems.

Course Overview

Practice Assignments: Each unit is broken down into lessons and each lesson has a practice assignment accompanying it which includes an answer key and video solutions. You are required to complete and mark at least three quarters of each practice assignment (show your work). These assignments will be graded on completeness.

Send-In Assignments: The send-in assignments are a way for you to demonstrate what you have learned throughout the unit. No answer key is provided. They will be marked by your teacher and are worth 45% of your final grade. However, if you wish to complete corrections you may do so to improve your grade (grade will be calculated based on higher mark). Note: you may hand in each send-in assignment only once for corrections, and the corrections must be done on your own.

Tests: At the end of each unit there is a test, which is to be written in the classroom under supervision. You may bring in a cheat sheet on a single sided 8.5'' by 11'' piece of paper. You may have no help on your test. If you wish to improve your grade on a test, you may do corrections. If you do the corrections on your own you will receive up to an additional 10% on that test.

How To Be Successful

1. Take good, organized notes for your own reference as you learn new concepts.
2. Make sure that you understand and can do the problems presented in lessons.
3. Complete practice assignments after each lesson and compare your answers to the answer key.
4. Correct your mistakes!
5. Write a Unit test only after your send-in assignment has been marked, returned and corrected. That way you can use your send-in assignment as a review.
6. One-on-One Help is available! If you need assistance, please don't hesitate to contact me via email or phone to ask a question or to set up a one-on-one appointment. We can do this in person or we can meet online using Zoom. Remember, I am your teacher and I'm here to help.

Resources

- Content Connections online lessons: https://apps.contentconnections.ca/ccltiprocess/

Substantive Activity (Powers and Radicals)

In order to be officially activated in this course you must first complete a substantive activity. For this activity you will complete the send-in assignment for unit 1: "Powers and Radicals". In this unit, you will review the exponent laws; explore rational exponents; simplify radicals; add and subtract radicals; multiply radicals; divide and rationalize radicals; and solve radical equations. The substantive activity covers a number of curriculum outcomes such as:

Big Ideas
- The meanings of, and **connections** between, operations extend to powers, radicals, and polynomials.
- Algebra allows us to **generalize** relationships through abstract thinking.

Content
- **powers** with rational exponents
- **radical** operations and equations

Curricular Competencies
- Explore, **analyze**, and apply mathematical ideas using **reason**, **technology**, and **other tools**
- **Estimate reasonably** and demonstrate **fluent, flexible, and strategic thinking** about number
- Develop, demonstrate, and apply conceptual understanding of mathematical ideas through play, story, **inquiry**, and problem solving
- **Represent** mathematical ideas in concrete, pictorial, and symbolic forms
- **Explain and justify** mathematical ideas and **decisions** in **many ways**
- **Connect mathematical concepts** with each other, with other areas, and with personal interests

Course evaluation:

Final Grade Course Calculator

Practice Assignments 10%	X 0.10 =	
Send-in Assignments (including Substantive Activity 5.63%) 45%	X 0.45 =	
Tests 45%	X 0.45 =	
	Final Grade	

Course Organization

The course content is divided into 8 Units as shown below with suggested times. Note that once the substantive activity is complete, you will have 16 weeks to complete the remainder of the course.

Unit	Suggested time (1 week = 7.5 hours)	Assessments	Weight	Mark
1. Powers and Radicals	15 hours (2 weeks)	Practice Assignments 1,2,3,4,5,6,7	1.25%	
		Send-in Assignment (**Substantive Activity**)	5.63%	
		Test	5.63%	
2. Factoring Polynomials	15 hours (2 weeks)	Practice Assignments 1,2,3,4,5	1.25%	
		Send-in Assignment	5.63%	
		Test	5.63%	
3. Rational Expressions	19 hours (2.5 weeks)	Practice Assignments 1,2,3,4,5,6	1.25%	
		Send-in Assignment	5.63%	
		Test	5.63%	
4. Quadratic Expressions	15 hours (2 weeks)	Practice Assignments 1,2,3,4	1.25%	
		Send-in Assignment	5.63%	
		Test	5.63%	
5. Solving Quadratic Equations	15 hours (2 weeks)	Practice Assignments 1,2,3,4	1.25%	
		Send-in Assignment	5.63%	
		Test	5.63%	
6. Inequalities	15 hours (2 weeks)	Practice Assignments 1,2,3,4	1.25%	
		Send-in Assignment	5.63%	
		Test	5.63%	
7. Trigonometry	19 hours (2.5 weeks)	Practice Assignments 1,2,3,4,5,6,7	1.25%	
		Send-in Assignment	5.63%	
		Test	5.63%	
8. Financial Literacy	15 hours (2 weeks)	Practice Assignments 1,2,3,4,5	1.25%	
		Send-in Assignment	5.63%	
		Test	5.63%	
		Final Grade	100%	