Mathematics 9

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Welcome to Math 9! I look forward to the semester with you ☺

Math 9 is an academic class and I expect all students to try their best. I have very high expectations. This doesn't mean I think you will all get an "A" – but it would be nice!

1. **Show up on time.** Use the bathroom & fountain <u>before class</u>.
2. **Come prepared.** With all your materials AND completed homework.
   - Be in your assigned seat, ready to start class when the bell rings
3. **Do your work.**
   - Listen & follow directions – my job is to teach you
   - Work quietly without disturbing other students – your job is to learn
4. **Respect everyone and everything around you.**
   - People – teachers, students, support workers & TOC's and property.
   - Certain language is unacceptable in a school environment.
5. **No food or drinks.** (Water with a lid is allowed)
6. **NO CELL PHONES.** Use these on your own time. A class discussion will occur. PHONES ARE NOT CALCULATORS IN MATH CLASS!

What materials will you need for class?

- Your textbook: ***Math Links 9 – Bring to EVERY class please!***
- Binder with lined paper & completed homework
  - <u>PENCIL</u> & eraser → **ALL WORK MUST BE DONE IN PENCIL!**
- Hand-held scientific calculator – 2-line display is preferable
  - **An iPod or a cell phone is NOT a calculator!!!**

What should you learn from this class?

Core Competencies:	
How to think critically, solve problems and puzzles, apply mathematical knowledge to new situations, work collaboratively with other students, and relate what you learn to the world around you.	
Learning Standards	
Operations with Rational Numbers	Equations (graphing 2 variable linear)
Exponents and Exponent Laws	Equations (solving multi step 1 variable)
Operations with Polynomials	Statistics
Spatial Proportional Reasoning	Financial Literacy

BC Mathematics 9 BIG IDEAS

The principles and processes underlying operations with **numbers** apply equally to algebraic situations and can be described and analyzed.	Computational fluency and flexibility with numbers extend to operations with rational numbers.	**Continuous linear relationships** can be identified and represented in many connected ways to identify regularities and make generalizations.	Similar shapes have **proportional relationships** that can be described, measured, and compared.	Analyzing the validity, reliability, and representation of **data** enables us to compare and interpret.

Unit	Content
Number & Proportions **15%**	Central Tendency
	Simple interest, budgets, savings, transactions
	Similar Polygons
	Scale
Exponents **25%**	Numerical and variable bases $(3^4 = 3 \times 3 \times 3 \times 3 = 81$ and $n^2 = n \times n)$
	Exponent laws with whole number, positive exponents
	$(-3)^2 \neq -3^2$
	Distributive law with exponents
Number & Fractions **15%**	BEDMAS
	Organizing and converting fractions and decimals
	Operations with fractions
	Estimating and identifying squares and their roots
Linear Relationships **25%**	Polynomials – variables, degree, number of terms, coefficients, constants, algebra tiles and symbols to add, subtract, multiply and divide
	Linear Relationships – graphing lines and using co-ordinates, horizontal and vertical lines, interpolating and extrapolating
	Solving Linear Equations – multistep, fraction coefficients
Statistics **5%**	Population versus sample, bias, ethics, sampling techniques, misleading statistics
	Analysing data and identifying problems related to bias, use of language, ethics, cost, time, timing
FINAL EXAM 15%	ALL CONTENT from the ENTIRE COURSE