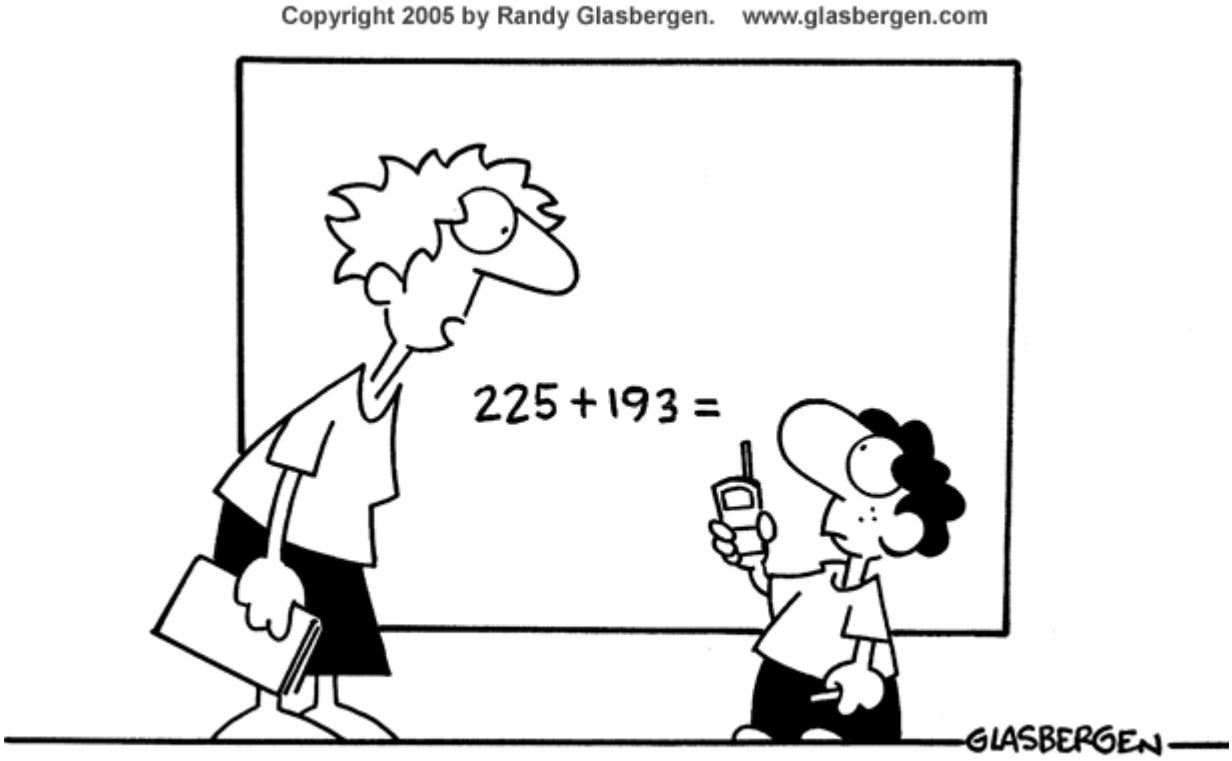
MATH 30-2

Course Outline



"You have to solve this problem by yourself. You can't call tech support."

Mathematics 30-2 Course Outline

Teacher: Mrs. Schulzke

School Phone: 403-342-4800 ext. 263380

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Textbook: *Principles of Mathematics 12*

Evaluation:

Unit		**Chapters**	**%**	**Dates**
1	Rational Expressions & Equations	4	14%	Sept 24th
2	Logical Reasoning & Probability	1,2,3	20%	Oct 29th
3	Polynomial Functions	5		
	Sinusoidal Functions	8	15%	Nov 25th
4	Exponential Functions	6		
	Logarithmic Functions	7	16%	Dec 16th
	Research Project		10%	Dec 17th
	In-class		12%	
	Out of Class		8%	
	Cumulative Exam (Units 1-4)		5%	Jan 4-18th
		Semester Work	100%	

FINAL GRADE	**Semester Work**	**50%**	
	Diploma Work	**50%**	**Jan 25th**
	Total	**100%**	
		9 am (2.5 hr & ½ hr)	

The following ideas are strongly recommended for success in Math 30-2.

1) Complete all daily assignments at the completion of each lesson.
2) Ask questions about any difficulties you are having.
3) Make a **summary sheet** of the main points of each unit.
4) Keep a well-organized notebook. All work should be done in pencil.
5) Do homework on a regular basis, and make sure that all assignments are completed and turned in. It is the student's responsibility to complete and turn in all assignments or to consult with the instructor.
6) Students must have their own **approved graphing calculator** for this course.

   A TI 84+ is highly recommended and will be the calculator used in class.

DIPLOMA EXAM **JANUARY 25th , 2016**

Format	28 Multiple choice	70%
	12 Numerical response	30%

Weight

Logic	17%	(7 questions)
Probability	33%	(13 questions)
Relations & Functions	50%	(20 questions)

Ultimately, **YOU** are responsible for **YOUR** learning and **YOUR** achievement in this course**!!!!!!!**

Mathematics 30–2 Formula Sheet

Relations and Functions

Graphing Calculator Window Format

x: [x_{min}, x_{max}, x_{scl}]

y: [y_{min}, y_{max}, y_{scl}]

Exponents and Logarithms

$y = a^x \leftrightarrow x = \log_a y$

$$\log_b c = \frac{\log_a c}{\log_a b}$$

Laws of Logarithms

$\log_a(M \cdot N) = \log_a M + \log_a N$

$$\log a\left(\frac{M}{N}\right) = \log aM - \log aN$$

$\log_a(M^n) = n \log_a M$

Exponential functions

$y = a \cdot b^x$

Sinusoidal functions

$y = a \cdot \sin(bx + c) + d$

$$Period = \frac{2\pi}{b}$$

Quadratic equations

For $ax^2 + bx + c = 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Probability

$$n! = n(n-1)(n-2)...3 \bullet 2 \bullet 1$$

where $n \in N$ *and* $0! = 1$

$$_nP_r = \frac{n!}{(n-r)!}$$

$$_nC_r = \frac{n!}{(n-r)!r!}$$

$$_nC_r = \binom{n}{r}$$

$P(A \cup B) = P(A) + P(B)$

$P(A \cup B) = P(A) + P(B) - P(A \cap B)$

$P(A \cap B) = P(A) \cdot P(B)$

$P(A \cap B) = P(A) \cdot P(B \backslash A)$

Logical Reasoning

A'	Complement
$\varnothing$	Empty set
$\cap$	Intersection
$\subset$	Subset
$\cup$	Union