

**10A PACING**  
**Fall 2011**

**TEACHER: Or Neeman**

**SUBJECT: Principles of Mathematics**

<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>
July 2011	July 26	27	28	29
	<b>ALGEBRA</b> Introductions, syllabus,  ***** Strategies for math, Review factorization	Factorization: common factor and special product formulas	Factorization: difference of squares, difference of cubes, grouping	Factorization: filling in the square  ***** Factorization: filling in the square and synthetic division
August 1	2	3	4	5
Factorization: synthetic division and combination of methods (incl. inspection)	Algebraic fractions: simplification  ***** Algebraic fractions: simplification and operations	Quadratic equations: general considerations through simple examples	Quadratic equations: finding and expressing solution sets	Practice solving quadratic equations  ***** Exercises with quadratic equations
8	9	10	11	12
Application of quadratic equations	Quiz #1  ***** Polynomial equations	Exercises with polynomial equations	Radical equations	Exercises with radical equations  ***** Fractional equations
15	16	17	18	19
HOLIDAY	Exercises involving fractional equations  ***** Review exercises on equations	Quiz #2	Review exercises on equations and applications	Midterm #1  ***** Midterm #1

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
22  Review linear inequalities	23  Quadratic inequalities ***** Quadratic inequalities	24  Polynomial inequalities	25  Fractional inequalities	26  Polynomial and fractional inequalities ***** Quiz #3  Progress reports
29  <b>LOGIC</b>  Basic concepts of logic	30  Conjunction and disjunction, translations ***** Conditional and biconditional, translations	31  Practice translations	September 1  Truth tables of connectives, drawing truth tables	2  Drawing and using truth tables ***** Exercises combining translations and truth tables
5  Quiz #4	6  <b>FUNCTIONS</b> Basic concepts of functions ***** Exercises on concepts of functions	7  Review rectangular coordinates, apply to functions	8  Applications of the concept of functions	9  Mappings, images, preimages  ***** Calculate images, preimages
12  Exercises involving functions, images, and preimages	13  Geometric applications of the concept of functions  ***** Maximal domains: rational functions	14  Maximal domains: radical functions	15  HOLIDAY	16  Exercises on maximal domains *****  Review for midterm
19  Review for midterm	20  Midterm #2 ***** Midterm #2	21  Exercises about maximal domains (composite functions)	22  Exercises about maximal domains (composite functions)	23  General review   Report cards

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**1<sup>st</sup> Quarter, Fall 2011**

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**GRADE: 10A**

<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>
October 3	4	5	6	7
Review functions	Analyze graphs for properties of functions ***** Analyze graphs for properties of functions	Analyze graphs for images and preimages	Exercises about analyzing graphs	Exercises about analyzing graphs ***** Quiz #5
10	11	12	13	14
Graphing functions	Graphing functions ***** Transformations of functions	Graphing transformations of functions	Graphing transformations of functions	Solve exercises through graphing functions ***** Injectivity
17	18	19	20	21
HOLIDAY	Surjectivity ***** Bijectivity, all three concepts combined	Exercises about this classification of functions	Concept of inverse functions, examples	Test for inverse functions ***** Quiz #6
24	25	26	27	28
Review for midterm	Midterm #3 ***** Midterm #3	Find inverse functions	Find inverse functions and applications of inverse functions	ART FAIR

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
31 <b>LINEAR FUNCTION</b> (combines algebra, functions, geometry)  Concept, examples of linear functions	November 1  Gradient and y- intercept ***** Intersections with axes	2  Find equation given two points	3  Find equation given a point and the gradient	4  Exercises on finding equations ***** Exercises on finding equations and intersections Progress reports
7  Midpoints and distances	8  Application: areas and perimeters  ***** Application: areas and perimeters	9  Quiz #7	10  Find lines parallel to give a line	11  Perpendicularity and gradients ***** Find lines perpendicular to a given line
14  Exercises involving parallel and perpendicular lines	15  Exercises involving parallel and perpendicular lines ***** Intersections of lines	16  Systems of equations and intersections of lines	17  Exercises with finding intersections of lines	18  Exercises with finding intersections of lines ***** Applications of linear function
21  Exercises on applications of linear functions combining several tasts	22  Quiz #8 ***** Review for midterm	23  Review for midterm	24  Review for midterm	25  Review for midterm  ***** General review
28  General review	29  Midterm #4  *****  Midterm #4	30  General review	December 1  General review	2          Semester Exams
Semester Exams 20	Semester Exams 21	Semester Exams 22	Semester Exams 23	Last Day School 24