Howe-Two Software *Outline by course,*
Italic programs (green) are under development. Programs with an s- have been created by students.

ALGEBRA I (Prentice Hall)

http://www.howe-two.com

CHAPTER 1: TOOLS OF ALGEBRA
- INTRODUCTION TO DATA *(mean, median, mode, line of best fit)*
- PATTERNS (Find the missing number)
- ADDING & SUBTRACTING SIGNED NUMBERS
- MULTIPLYING SIGNED NUMBERS
- NUMBER TIES (tie.exe) (add, multiply, divide)
- s-ASTEROIDS (mixed practice)
- PUT NUMBERS IN THEIR PLACE Real number system
- NUMBER ORDER ($<, >$ or $=$)
- EVALUATING EXPESSIONS Quiz
- TRANSLATING EXPRESSION
- ALICE'S DATA
- CIRCLE AND BAR GRAPHS
- *FIND THE RULE*
- PROPERTIES
- PROBABILITY
- PROBABILITY WITH DICE combined with Excel worksheet
- COIN FLIP multiple trials-graph
- MARBLE PROBABILITY
- LEARN probability with VENN
- MATRICES size, elements, and adding

CHAPTER 2: FUNCTIONS AND THEIR GRAPHS
- POINTS AND QUADRANTS
- DOMAIN AND RANGE
- DISTANCE AND MIDPOINT
- INTRODUCTION TO DATA *(mean, median, mode, line of best fit)*
- RELATIONS AND FUNCTIONS
- FUNCTION NOTATION
- FAMILIES OF FUNCTIONS   lines/absolute value/ quadratic
- PROBABILITY (see chapter one for options)
- ALICE'S DATA
- COUNTING??

CHAPTER 3: ALGEBRAIC CONCEPTS AND SIMPLE EQUATIONS
- TWO STEP EQUATIONS a_quiz1e.exe; quiz1.exe
- EZMATHO I,
- MATHO (linear)
- MARBLE PROBABILITY (level 2) (urn_prob.exe) replacement/non-replacement
- PERCENT (easy) (proficint.exe)
- PERCENT (challenging word problems pencil/paper needed) (percent.exe)
- COMBINE LIKE TERMS

CAPTER 4: EQUATIONS AND INEQUALITIES
- PROPORTIONS (Patterns & Problems)(more Percent problems --see chpt 3)
- LEARN TO SOLVE
- LINEAR MATHO
- ABSOLUTE VALUE EQUATIONS (number line) & Solve
- INEQUALITIES (Solve & graph on number line)
- ABSOLUTE VALUE INEQUALITIES: Patterns & solve

CHAPTER 5: GRAPHING AND WRITING LINEAR EQUATIONS
- POINTS AND SLOPE (pt&slope.exe)
- INTRODUCTION TO DATA *(mean, median, mode, line of best fit)* data.exe
- LINEAR PATTERNS
- GRAPHING with y=mx+b
- TWO POINTS
- GUESS A GRAPH (gsgraph.exe) TI-calculator downloads at web site
- TWO WAYS OF GRAPHING (intercepts & y=mx + b)
- DIRECT VARIATION
- WRITE THE EQUATION
- ALICE'S DATA

CHAPTER 6: SYSTEMS OF EQUATIONS AND INEQUALITIES
- SOLVE SYSTEMS BY GRAPHING graph_l.exe (WORKSHEET PREPARED)
- SOLVING SYSTEMS BY SUBSTITUTION
- LINEAR PATTERNS(a dynamic look at lines) (can graph inequalities for linear programming)
- SIMULTANEOUS EQUATIONS (elimination)

CHAPTER 7: QUADRATIC EQUATIONS AND FUNCTIONS
- QUADRATIC EQUATIONS (y=a(x-h)^2+k)
- INSTANT RECALL (prime factorization/perfect squares--like matho)
- RADICALS
- QUADRATIC MATHO
- QUADRATIC FORMULA (step by step)

CHAPTER 8: EXPONENTS AND EXPONENTIAL FUNCTIONS
- INTRO TO EXPONENTS
- LAWS OF EXPONENTS
- SCIENTIFIC NOTATION
- *A PENNY SAVED*
- *EXPONENTIAL & LINEAR FUNCTIONS (exp.exe) (growth & decay))*

CHAPTER 9: RIGHT TRIANGLES AND RADICAL EXPRESSIONS
- PYTHAGOREAN TRIPLES & MORE
- RIGHT TRI TRIG/ELEVATION
- RADICAL EQUATIONS
- DISTANCE & MIDPOINT
- RADICALS
- *SOLVING RADICAL EQUATIONS*

CHAPTER 10: POLYNOMIALS
- COMBINING LIKE TERMS (TRINOMIALS)
- FACTORING GCF (FACf_GCF)
- MULTIPLYING BINOMIALS: (ax+b)(cx+d)
- FACTORING TRINOMIALS (ax^2 + bx + c)
- FACTORING BY GROUPING
- QUADRATIC MATHO
- s-FACTOR FIGHTER (two version)

CHAPTER 11: RATIONAL EXPRESSIONS AND FUNCTIONS
- INVERSE VARIATION (direct & inverse)
- RATIONAL FUNCTIONS
- NAME THE FUNCTION FAMILY *(family.exe)*
- COUNTING