

Matrix: Fund Raising Riddle

Student's Name:		Grade Level:		School:	
Analytical Score:				Holistic Score: N A P E	
<input type="checkbox"/> Understanding:		N A P E		Comments or Observations:	
<input type="checkbox"/> Reasoning, Strategies, & Mathematical Procedures:		N A P E			
<input type="checkbox"/> Communication:		N A P E			
APS MATHEMATICS STRAND: NUMBER SENSE AND OPERATIONS					
GRADE: SIXTH					
Explains the effect of changing the placement of mathematical symbols on the outcome of the problem (e.g., \$1.00, \$10.00, \$100.00).		Develops and tests strategies for adding and subtracting fractions with like and unlike denominators.		Develops and tests strategies for adding, subtracting, multiplying, and dividing decimals.	
Uses commutative, associative, identity, zero, and distributive properties when solving problems.		Develops and tests strategies for multiplying and dividing proper, improper, and mixed fractions.		Estimates and solves problems involving decimals and justifies the reasonableness of the solution.	
Selects an appropriate operation (i.e., +, -, x, ÷) to solve situational story problems.		Translates hypotheses into formal and fluent fractional and decimal computations using appropriate mathematical terminology and processes.			
Selects and uses the appropriate number form (e.g., fraction, decimal, or percent) in a variety of situations, including measurement in U.S and metric systems.		Estimates and solves problems involving fractions and justifies the reasonableness of the solution.			
GRADE: SEVENTH					
Explains the relationship that can be expressed as ratios of part-to-whole (e.g., 5 red apples out of a total of 8 apples, expressed as 5/8).					

Mathematics Standards Matrix: Fund Raising Riddle – Grade 8

APS/RDA/CHF: Performance-Based Mathematics Assessment 2001-02

*Performance Standards are based on the *APS K – 12 Mathematics Content and Performance Standards – Final 2001*

GRADE: EIGHTH				
Shows flexibility using multiple number representations; identifies relationships involving the subsets of the real number system (e.g., order, least to greatest: 1, $\sqrt{2}$, $\sqrt{3}$, 2).		Selects appropriate mathematical representations to describe thought-provoking real-life situations.		Manipulates all real numbers, their properties, and operations.
APS MATHEMATICS STRAND: GEOMETRY, SPATIAL SENSE, AND MEASUREMENT				
GRADE: FIFTH				
Uses measures of money and time, U.S. and metric measures of length, weight, and volume to solve problems and makes estimates.				
APS MATHEMATICS STRAND: DATA ANALYSIS, STATISTICS, AND PROBABILITY				
GRADE: EIGHTH				
Interprets data and makes conclusions from data.				
APS MATHEMATICS STRAND: PATTERNS, FUNCTIONS, AND ALGEBRAIC CONCEPTS				
GRADE: SIXTH				
Solves one-step equations using the concept of balance when quantities are added, subtracted, or divided to both sides of an equation.				
GRADE: SEVENTH				
Identifies and uses variable expressions and formulas to solve a variety of real-life situations (e.g., Simple Interest: $I = prt$).		Represents, describes, and analyzes numerical patterns and linear relationships using tables, graphs, words, and standard algebraic notation.		Develops and tests strategies for solving two-step equations.

GRADE: EIGHTH					
Represents, describes, and analyzes numerical patterns and relationships using tables, graphs, words, and standard algebraic notation.		Investigates and applies the basic mathematical properties (e.g., commutative, associative, distributive, identity, and zero) in a variety of situations.			
Identifies and models real-life situations using multiple representations.		Develops and tests strategies for solving multi-step equations.			
APS MATHEMATICS STRAND: GLOBAL MATHEMATICAL PROCESSES					
GRADE: KINDERGARTEN THROUGH TWELTH					
Develops resourcefulness and perseverance in problem solving in mathematics and other disciplines.		Works in teams to share ideas, to develop and coordinate group approaches to problems, and to communicate findings.		Recognizes and applies mathematics in contexts outside the mathematics course.	
Recognizes when to use previously learned strategies to solve new problems.		Communicates mathematical thinking coherently and clearly to others.		Develops a repertoire of mathematical representation (e.g. pictures, written symbols, oral language, real-world situations, and manipulative models) that can be used purposefully and appropriately interchangeably.	
Develops and uses strategies (e.g., breaking complex problems into simpler parts) for solving given problems.		Analyzes and evaluates mathematical thinking and strategies of others.		Selects, applies, and translates among mathematical representations to solve problems.	
Monitors, discusses, and reflects on the process of mathematical problem solving.		Relates applications to mathematical language in various modalities.		Uses representations to model and interpret physical, social, and mathematical phenomena.	
Makes and investigates mathematical conjectures and uses them successfully in developing and evaluating mathematical arguments and proofs.		Identifies and connects functions with real-world applications.		Uses manipulatives, calculators, computers, and other tools as appropriate in order to strengthen mathematical thinking, understanding, and power to build upon foundational concepts.	