

RATIONALE

Pre-Algebra is designed to prepare students to enter the formal mathematics program; specifically Algebra I. Emphasis is placed on strengthening basic math skills and on introducing concepts of Algebra I.

COURSE DESCRIPTION

Pre-Algebra is a two semester course that focuses on three critical areas. Formulating and reasoning about expressions and equations, including modeling an association in bivariate data with linear equation and solving linear equations and systems of equations. Grasping the concept of a function and using functions to describe quantitative relationships; analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

MOST IMPORTANT LEARNER OUTCOMES

I can statements:

1. I can identify numbers that are not rational, and approximate them by rational numbers.
2. I can work with radicals and integer exponents.
3. I can understand the connections between proportional relationships, lines and linear equations.
4. I can analyze and solve linear equations and pairs of simultaneous linear equations.
5. I can define, evaluate, and compare functions.
6. I can use functions to model relationships between quantities.
7. I can understand congruence and similarity using physical models, transparencies, or geometry software.
8. I can understand and apply the Pythagorean Theorem.
9. I can solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.
10. I can investigate patterns of association in bivariate data.

EVALUATION

Evaluation will include objective, group, and computer tests with retesting as applicable. Teacher observation of students as they work individually and in cooperative learning groups will also be utilized as a method of evaluation. Practice problems as assigned, oral exercises, quizzes as necessary, and work sheets will be used to evaluate the student's progress along with MAP.