

PROGRAM GOALS

MATHEMATICS EDUCATION

1. The student is able to use the symbols, elements, operations and structure of whole numbers, integers, rational numbers, real numbers; and, as appropriate to needs and interests, complex numbers and other systems both finite and infinite.
2. The student is able to compute with accuracy and efficiency in operation with numbers and algebraic expressions.
3. The student is able to solve open sentences (equations, inequalities).
4. The student is able to use geometric definitions, postulates, and theorems.
5. The student is able to measure things which can be described by a number that compares the thing being measured to a specific unit, and to make estimates of measurements.
6. The student is able to use mathematical functions as represented by mathematical statements, graphs, and tables for the solution and graphing of problems.
7. The student is able to use principles of logic to develop a valid conclusion deductively or inductively.
8. The student is able to use the mathematics of probability and statistics.
9. The student is able to use the language and symbolism of sets, set operations and their properties to relate topics and branches of mathematics.
10. The student is able to translate a practical problem into a mathematical sentence or model, find a solution for the model, and interpret the mathematical solution in the context of the problem.
11. The student is able to select and use support technology such as calculators, computers, and slide rules in the solution of mathematical problems, and of problems which require mathematical solutions.
12. The student knows the historical and cultural development and functions of counting, measuring, and of mathematical symbols and systems.
13. The student is able to develop skills in problem identification, analysis, organization, evaluation, application and generalization.
14. The student values relationships of mathematical knowledge and skills to his or her increasing effectiveness in a variety of life roles.