DESCRIPTION OF EVENTS

All events may include some "word problems", and except in Event #5, interpretation usually should be immediate. Calculators may be used with the exception Event #1 and Event #3. Calculators must be hand-held and battery operated. Students will be responsible for providing their own calculator and extra batteries.

1. **Using Number Sense --**

   Alternate names for numbers, number patterns, place value, order relations among numbers, estimation, elementary probability and statistics, and reasonableness of results.

2. **Trigonometry --**

   Recognize and use trigonometric identities. Solve triangles, including use of laws of sines and cosines. Solve equations involving trigonometric and inverse trigonometric functions. Use radian and degree measure. Use vectors and complex numbers and polar form for complex numbers.

3. **Algebraic manipulations --**

   Add, subtract, multiply, and divide polynomials and rational fractions. Factor polynomials, find least common denominator of polynomial fractions. Simplify complex fractions. Solution of equations and inequalities reducible to linear and quadratic equations and inequalities. May include radicals and exponentials. Solution of systems of equations and inequalities with two unknowns.

4. **Informal geometry, measurement --**

   Computing perimeters, areas, volumes of given geometric figures. Using properties of geometric figures and similar and congruence relations. Central and inscribed angles in circles. Ratios and proportions. Metric conversions.

5. **Applications of algebra, arithmetic --**

   Word problems. The emphasis here will be on interpreting and solving problems presented in words rather than symbols. The problems may involve arithmetic only or the use of equations. Stress is on everyday applications.

6. **Calculations with calculators --**

   Students must have a scientific calculator with functions that include probability, trigonometry, and logarithms, as well as algebraic functions such as roots and radicals. All answers will be in decimal format or scientific notation.