

Mathematics as communication is an important curriculum standard, hence the mathematics curriculum emphasizes the continued development of language and symbolism to communicate mathematical ideas. Communication includes regular opportunities to discuss mathematical ideas, and to explain strategies and solutions using words, mathematical symbols, diagrams and graphs. While all students need extensive experience to express mathematical ideas orally and in writing, some students may have the desire—or should be encouraged by teachers—to publish their work in journals.

delta-K invites students to share their work with others beyond their classroom. Such submissions could include, for example, papers on a particular mathematical topic, an elegant solution to a mathematical problem, posing interesting problems, an interesting discovery, a mathematical proof, a mathematical challenge, an alternate solution to a familiar problem or anything that is deemed to be of mathematical interest.

Teachers are encouraged to review students' work prior to submission. Please attach a dated statement that permission is granted to the Mathematics Council of The Alberta Teachers' Association to publish "_____" in one of its publications. Parental permission is required if the student is under age 18. The student author must sign this statement, indicate the student's grade level, and provide an address and telephone number.

The following work, entitled "Polynomial Functions Restaurant," has been submitted by Colin Szasz, Grade 12 student at Paul Kane High School in St. Albert.

Polynomial Functions Restaurant

Colin Szasz

Appetizers

- ☞ *Ordered Pairs* . . . delicious little devils available in $(1, 2)$, $(3, 10)$ or any relation you like.
- ☞ *Domains and Ranges* . . . a great mixture of x s, y s, $<s$, $>s$, $\{s$ and $\}s$.
- ☞ *Zeros* . . . they'll intercept everyone's axis with their great taste.

Main Courses

- ☞ *Parabola Pot Pie* . . . so delicious that everyone "curves" them and can't eat just one.
- ☞ *Integral Polynomials* . . . no little, fractional pieces here, just full-size meaty chunks in an x and y sauce.
- ☞ *Algorithms* . . . freshly caught from the sea, those $P(x)$ s, $D(x)$ s, $Q(x)$ s and R s will divide up your appetite till it's gone!
- ☞ *Synthetic Division* . . . much better than the real kind, with x coefficients of 1 only, giving it a real appeal.

- ☞ *Potential Zeros* . . . just like our zeros, except more satisfying and you don't know what's inside till you try them out!

Beverages

- ☞ "*Roots*" Beer . . . in regular or lite, it'll eliminate your y values with its great taste!
- ☞ *Remainder Theorem Serum* . . . a thick, thirst-quenching drink that goes great with every equation, especially our Algorithms.

Desserts

- ☞ *Functions* . . . super-sweet treats in the flavors of quadratic, cubic, quartic or quintic.
- ☞ *Degrees* . . . cold ice cream in many flavors to include all your x terms.
- ☞ *Factor Theorem Cake* . . . it'll prove that you really are a factor.