

Calculus Challenge Problem # 2

There was a lot of good work done on this problem. There were many ways to do each of the problems, so you didn't need to use the solution I wrote up. In particular, I liked La Habra's solution to #6, considering $a\sqrt{x} = Mx + B$ as a quadratic equation in \sqrt{x} . Their solution was much nicer than the one I had in the SOLUTIONS. Salem Academy had an interesting approach to problems #3 and #4. Instead of using the zero discriminant, they used the fact that the linear term of a quadratic is the sum of the zeros, or in the case of a double root, twice that root. That observation also made a lot of the algebra in my solutions disappear. Great ideas! I wish I had thought of them.

There were some nice proofs that the shift over, write the equation of the linear and constant terms, then shift back works for any polynomial, but only for polynomials.

Be sure to put your school name on your submission.

Results to Date:

School	Teacher	Score	Cumulative Score
Blessed Trinity Catholic High School	Amy Muller	3	3
Cony High School	Joshua Poulin		3.5
Farmingham High School	Christina Lepi	5	5
Hickman High School	Deanna Wasman	5	10
La Habra High School	Barbara De Roes	5	10
Lakota West High School	Brian Meeron		3
Salem Academy	Kris Porazzi Sorrells	4.5	8.5
Ukarumpa International School	Scott Carey		4
Washington High School	Toby McMahan	3	3