1067-Z1-2364   **Michael D. Bolt*** (`mbolt@calvin.edu`), 1740 Knollcrest Circle SE, Grand Rapids, MI 49546-4403, and **Daniel C. Isaksen**. *Dogs don't need calculus.*

Many optimization problems can be solved without requiring the use of calculus. By way of example, we describe a new variational method for optimization that relies on inequalities. The last example provides a completely algebraic solution to the problem of minimizing the time it takes a dog to retrieve a thrown ball. (Received September 22, 2010)