1023-26-484   **Jan P. Boronski*** (`boronjp@auburn.edu`) and **Marian Turzanski** (`mtturz@ux2.math.us.edu.pl`). *Antipodal-like theorems and symmetric continua in euclidean spaces.*

We show that for any odd real-valued mapping defined on the euclidean n-cube the set of its zeros contains a unique symmetric component. Such a component separates the n-cube between symmetric points. Additionally, the reverse theorem holds true as well. This is a generalization of the result by Krasinkiewicz, who showed the analogous property for the n-sphere. We discuss also some other theorems concerning the problem of antipodity. Among them, we show that any family of n symmetric continua separating the n-sphere between antipodal points has nonempty intersection, which is equivalent to the Borsuk-Ulam antipodal theorem. Yang's theorem on existence, on the n-sphere, of n orthogonal diameters mapped into a single point is derived from the main theorem. (Received September 14, 2006)