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Marshall A. Whittlesey* (mwhittle@csusm.edu), Department of Mathematics, California State University San Marcos, 333 S. Twin Oaks Valley Road, San Marcos, CA 92096. *Graphs of analytic functions in hull boundaries.* Preliminary report.

Let B_n be the open unit ball in \mathbb{C}^n , X a subset of $\partial B_n \times \mathbb{C}^m$, and (z_0, w_0) a point in $B_n \times \mathbb{C}^m$. We seek an analytic $f: B_n \to \mathbb{C}^m$ whose graph passes through (z_0, w_0) and has boundary in X. We find such a graph based on the ability to place (z_0, w_0) in the boundary of the polynomial hull of many subsets of X. (Received February 15, 2011)