Mitsuo Kobayashi* (mkobayashi@cse.pomona.edu), Cal Poly Pomona, Department of Mathematics and Statistics, 3801 West Temple Avenue, Pomona, CA 91768. A Dissection Proof of Leibniz’s Series for $\pi/4$.

Inspired by Lord Brouncker’s discovery of his series for $\ln 2$ by mapping rectangular areas below the curve $1/x$, Viggo Brun found a way to partition regions of the unit circle so that their areas correspond to terms of Leibniz’s series for $\pi/4$. Brun’s argument involves splitting the circle into triangular wedges and applying a limiting process. We show that usual techniques in calculus may be used to derive a result similar to Brun’s. (Received September 25, 2012)