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David L Finn* (david.finn@rose-hulman.edu), Rose-Hulman Institute of Technology,
Department of Mathematics, CM 140, 5500 Wabash Avenue, Terre Haute, IN 47803. *On the shape
of a cookie.* Preliminary report.

We examine a heuristic model for the shape of a plain sugar cookie (a vanilla wafer) as a nonsymmetric sessile drop. We test this heuristic model by comparing the shape of a vanilla wafer to solutions of the capillary surface equation $\operatorname{div}(\nabla u / \sqrt{1 + |\nabla u|^2}) = \kappa u - \lambda$ in a planar domain Ω with the boundary condition $u = 0$ on $\partial\Omega$. (Received September 29, 2005)