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Luke D. Edholm* (edholm.1@osu.edu). *The Bergman theory of generalized Hartogs triangles:
 L^p -Sobolev boundedness.*

The Bergman theory of domains which generalize the Hartogs triangle is explored. For each $\gamma \in \mathbb{Z}^+$, we give an explicit formula for the Bergman kernel of the domain $\Omega_\gamma = \{|z_1|^\gamma < |z_2| < 1\}$. Using this formula we explore the action of the Bergman projection of Ω_γ on the associated Lebesgue and Sobolev function spaces. We also mention how these results change in the cases when γ is a non-integer rational or an irrational number. (Received September 12, 2015)