

1023-22-357

Neil Hindman* (nhindman@aol.com), Department of Mathematics, Howard University, Washington, DC 20059, and **Dona Strauss**. *Characterization of simplicity and cancellativity in βS .*

We determine precisely when the Stone-Čech compactification βS of a discrete semigroup S is simple and when it is left cancellative or right cancellative. As a consequence we see that βS is cancellative only when it is trivially so. That is, βS is cancellative if and only if S is a finite group. (Received September 08, 2006)