1017-20-41   **John Donnelly*** (`donneljr@muc.edu`), Department of Mathematics, Mount Union College, 1972 Clark Avenue, Alliance, OH 44601. *Ruinous Subsets of Richard Thompson's Group F.*

Richard Thompson's group F is defined to be the group of right fractions of the monoid P given by the presentation $\langle x_0, x_1, x_2, \ldots \mid x_n x_m = x_m x_{n+1} \ (n > m) \rangle$. The question of whether or not F is amenable is still open. We give a criterion which states that F is nonamenable if and only if there exist finite subsets in the moniod P satisfying certain properties. (Received February 03, 2006)