1023-Z1-584 Darren Wick* (dwick@ashland.edu), Department of Mathematics, Ashland University, Ashland, OH 44805. Fraction Sets for Basic Digit Sets. Preliminary report.
A finite set of integers $D$ with $0 \in D$ is basic for the base $b \in \mathbb{Z}$ if every integer can be written uniquely in the base $b$ with digits from $D$. Since no sign bit is required, basic sets must have a negative base $b$ or some negative integers in $D$. The fraction set for $(b, D)$ is the set of all representable numbers with integer part zero. We discuss some properties of basic sets and investigate the structure of their fraction sets. (Received September 18, 2006)

