Abstract

Let $\mathcal{S}_1$ denote a sequence of variables y_n, $n \in \mathbb{Z}$, subject to some difference equation. Let $\mathcal{S}_2$ denote a sequence of $n \times n$ determinants T_n, with elements defined in terms of the members of some sequence of type $\mathcal{S}_1$, in such a way that the T_n also obey a difference equation, proved as Proposition 1. This is used to produce determinantal identities. From a wide range of examples studied, a selection of these identities is presented, some quite striking, in which the Fibonacci, and sometimes Lucas or Jacobsthal numbers appear in either the y_n or the T_n role, or in some cases both roles.