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Abstract

The Horadam recurrence relation $w_{n+1}(a, b; p, q) = pw_n(a, b; p, q) - qw_{n-1}(a, b; p, q)$ (with $w_0 = a$ and $w_1 = b$) has inspired consideration of the recurrence $z_n(a, b; p, q) = z_n^p(a, b; p, q) \cdot z_{n-1}^q$ (with $z_0 = a$ and $z_1 = b$). This paper defines a natural sequence of such recurrence relations of which w_n and z_n are the first and second.