$$(21)\quad S_{k+1} = (4k^2 + 2k + 1)S_k + 2k(2k + 1)(4k^2 + 2k + 1)S_{k-1} - 2k(2k + 1)(2k - 1)^2(2k - 2)^2S_{k-2} ,$$

balid for $k = 0, 1, 2, \cdots$.

[Continued from page 168.]

FIBONACCI PRIMITIVE ROOTS

etc. Of course, that is (abstractly) the same thing we are doing in (2), (3).

In [7], Emma Lehmer examines the quadratic character of

$$\theta = (1 + \sqrt{5})/2 \qquad (\text{mod } p) .$$

If θ is a quadratic residue of p, but not a higher power residue, then all quadratic residues can be generated by addition. In our construction, θ is a primitive root and generates the quadratic nonresidues also.

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