

## REFERENCES

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If  $a \equiv 0$ ,  $b \not\equiv 0 \pmod{p}$ , then every term of the primary sequence from the second one on will be  $\equiv 0 \pmod{p}$  and this sequence will satisfy the theorem since

$$J_{p-(k/p)} \equiv J_p \equiv 0 \pmod{p}.$$

If  $a \equiv 0$ ,  $b \not\equiv 0 \pmod{p}$ , then we will get the sequence  $(1, 0, b, 0, b^2, 0, b^3, 0, \dots)$  and every second term will be divisible by  $p$ . Thus, whether  $p - (k/p) = p + 1$  or  $p - 1$ , the theorem will be satisfied.

I will close the paper by investigating which terms of primary sequence are divisible by the prime 2. If  $a, b$  are both odd, we obtain the repetitive sequence  $(1, 1, 0, \dots)$ , and  $J_3 = J_{2+1} \equiv 0 \pmod{2}$ .

If  $a$  is odd and  $b$  is even, then  $\{J_n\}$  is a Fibonacci-like group  $\pmod{2}$  and we get the sequence  $(1, 1, 1, \dots)$ .

If  $a$  is even and  $b$  odd, we get the sequence  $(1, 0, 1, 0, 1, 0, \dots)$  and  $J_2 = J_{2+0} \equiv 0 \pmod{2}$ .

If  $a, b$  are both even, we obtain the sequence  $(1, 0, 0, 0, \dots)$  and  $J_2 \equiv 0 \pmod{2}$ .

Note. The Fibonacci group was pointed out to me by Stan Perlo, currently a graduate student at the University of Michigan.

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