10 [9].—KARL C. RUBIN, *Table of* $A^{(k)}(n)$, Woodrow Wilson High School, Washington, D. C., 1973, ms. of 4 pages deposited in the UMT file.

This is an extension of Wagstaff's table [1] of $A^{(k)}(n)$. This is the cardinality of the largest subset of the natural numbers 1 to n wherein no k numbers are in arithmetic progression. Wagstaff computed these for $k = 3(1)8$ and for all $n = 1, 2, \cdots$ up to

$$A^{(3)}(53) = 17, \quad A^{(4)}(52) = 26, \quad A^{(5)}(74) = 48,$$

$$A^{(6)}(52) = 38, \quad A^{(7)}(53) = 42, \quad A^{(8)}(57) = 46.$$

Here, $k = 6(1)8$ are extended up to

$$A^{(6)}(80) = 55, \quad A^{(7)}(94) = 72, \quad A^{(8)}(80) = 64$$

using Wagstaff's method [2] on a SPC-16 minicomputer. The ratios

$$A^{(k)}(n)/n$$

for these three k have therefore been only reduced slightly. The conjecture is that they $\to 0$ as $n \to \infty$.

The author suggests that a further extension is "somewhat impractical" since "$A^{(6)}(80) = 55$ ran for several nights."

D. S.

1. SAMUEL S. WAGSTAFF, JR., *Math. Comp.*, v. 26, 1972, pp. 767–771.
2. S. S. WAGSTAFF, JR., *Math. Comp.*, v. 21, 1967, pp. 695–699.

11 [9].—HUGH WILLIAMS, LARRY HENDERSON & KEN WRIGHT, *Two Related Quadratic Surds Having Continued Fractions with Exceptionally Long Periods*, University of Manitoba, 1973, 177 computer sheets deposited in the UMT file.

It was known [1], [2] that the prime

$$p = 26437680473689$$

has two properties. (A) All numbers < 151 are quadratic residues of p. (B) The class number $h(p)$ of $Q(\sqrt{p})$ equals 1. It follows that the periodic continued fractions

$$\frac{1}{2}(\sqrt{p} - 5141757) = \frac{1}{1+}\,\frac{1}{3+}\,\frac{1}{940+}\,\frac{1}{3+}\cdots, \tag{1}$$

and

$$\sqrt{p} - 5141758 = \frac{1}{1+}\,\frac{1}{1+}\,\frac{1}{1880+}\,\frac{1}{1+}\cdots \tag{2}$$