In stating our lemma, we ignored any discussion of the dimensionality of Y and Z. It is clear that the result is valid if A(n) and Y are $r \times r$ matrices, B(n) and z $s \times s$ matrices, and C and X $r \times s$ matrices.

Using the same technique as before, but with much more computation, we can obtain the linear difference equation of order rs whose solutions are the products of order r and one of order s.

REFERENCES

1. C. Appell, Comptes Rendus, XCI (1880), pp. 211-214.
2. G. N. Watson, Bessell Functions, MacMillan, N. Y., 1948, pp. 145-146.
3. R. Bellman, "On the Linear Differential Equations whose Solutions are the Products of Solutions of Two Given Linear Differential Equations," Boll. Un. Mat. Ital. (3) 12 (1957), pp. 12-15.

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(continued from p. 85.)

4. REMARKS

Generalizing these famous conjectures leads to a multitude of conjectures in the Gaussian Integers. Some such as the infinitude of twin primes appears easier to settle and some such as the quadruples of primes seem less attainable than the real case does.

See p. 80 for a First Quadrant Graph of Gaussian Primes.

5. REFERENCES

1. J. H. Jordan and C. J. Potratz, "Complete Residue Systems in the Gaussian Integers," Mathematics Magazine, Vol. 38, No. 1, pp. 1-12 (1965).

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