1087-13-56 **Lee Klingler*** (klingler@fau.edu), Department of Mathematical Sciences, Florida Atlantic University, Boca Raton, FL 33431, and **Yuri Villanueva**. *Rings of integer-valued polynomials and derivatives.* Preliminary report.

Gilmer and Smith showed that the ring $\mathrm{Int}(\mathbb{Z}) = \{f \in \mathbb{Q}[X] \mid f(\mathbb{Z}) \subseteq \mathbb{Z}\}$ of integer-valued polynomials on $\mathbb{Z}$ has the 2-generator property; that is, every finitely generated ideal of $\mathrm{Int}(\mathbb{Z})$ can be generated by two elements. We extend this result to more general domains D and more general rings of integer-valued polynomials. Using ideas of Cahen and Chabert, we show that, if D is a Noetherian, locally analytically irreducible domain with finite residue fields, and if D has the m-generator property, then the ring $\mathrm{Int}^{(r)}(D) = \{f \in K[X] \mid f^{(k)}(D) \subseteq D \text{ for all } 0 \leq k \leq r\}$ of integer-valued polynomials and derivatives (up to order r) has the $((r+1)m+1)$-generator property, where K is the field of fractions of D. (Received November 25, 2012)