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*Graphical Properties of the Bipartite Subgraph of Spec( $\mathbb{Z}[x]$ )*. Preliminary report.

In this work we investigate the graphical properties of the bipartite subgraph of  $\text{Spec}(\mathbb{Z}[x])$ . By approaching prime spectra from a new perspective we hope to gain more insight about the ring. We have results concerning such fundamental graph theoretical properties as connectivity, girth, diameter and circumference for the bipartite subgraph of  $\text{Spec}(\mathbb{Z}[x])$ . As the graph associated with  $\text{Spec}(\mathbb{Z}[x])$  is an infinite graph, we consider some infinite graph theory aspects of the spec graph like homogeneity and ray behavior. (Received August 16, 2012)