

1154-13-1979      **Roswitha Rissner** and **Irena Swanson\*** ([iswanson@reed.edu](mailto:iswanson@reed.edu)). *Numbers of associated prime ideals of powers of monomial ideals*. Preliminary report.

What are the allowed sequences  $\{a_n\}$  of positive integers for which there exists a monomial ideal  $I$  (in a polynomial ring over a field in finitely many variables) such that the number of associated prime ideals of the  $n$ th power of  $I$  equals  $a_n$ ? By a result of Brodmann the sequence must be eventually constant. A result of the second author and Sarah Weinsten says that all non-increasing sequence are realized in this way. Here we examine other classes of realizable sequences. (Received September 16, 2019)