1100-13-160   **H. Ananthnarayan**, **E. Celikbas** and **Z. Yang***, 203 Avery Hall, Department of Mathematics, University of Nebraska-Lincoln, Lincoln, NE 68588. *Associated graded rings and connected sums.*

A connected sum is a construction that can be used to produce Gorenstein rings. We will explore some connections between associated graded rings and connected sums. In particular, we will look at conditions on the associated graded ring of a Gorenstein Artin k-algebra, Q, which force Q to be a connected sum. We will also see some applications at the end. (Received February 06, 2014)