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Arlington, TX 76019-0408. *Tendencies of Trivariate Monomial Resolutions*. Preliminary report.

We will explore some specific properties admitted by the free resolutions over S of $R = S/I$ where $S = k[x, y, z]$, k a field and I is a monomial ideal. The main focus will be resolutions where I is primary to the homogeneous maximal ideal, so that R is Cohen-Macaulay. Specifically, we will identify certain characteristics of the last matrix of these resolutions. These characteristics pertain to the question of whether the first Bass number of R is always larger than the zeroth. (Received September 22, 2010)