Meeting: 1001, Evanston, Illinois, SS 8A, Special Session on Computability Theory and Applications

1001-03-132 **Marat M. Arslanov** (Marat.Arslanov@ksu.ru), Department of Mathematics, Kazan State University, Kremlevskaya St. 18, 420008 Kazan, Russia, **Iskander Sh. Kalimullin** (Iskander.Kalimullin@ksu.ru), Department of Mathematics, Kazan State University, Kremlevskaya St. 18, 420008 Kazan, Russia, and **Steffen Lempp*** (lempp@math.wisc.edu), Department of Mathematics, University of Wisconsin, 480 Lincoln Drive, Madison, WI 53706. *On Downey's Conjecture.* Preliminary report.

We provide a negative solution to a conjecture of Downey by exhibiting an elementary difference between the d.c.e. (or 2-c.e.) degrees and the 3-c.e. degrees. More specifically, we show the following to hold in the former but not the latter structure: If $\mathbf{u}$ is a nonzero degree then there is at most one degree $\mathbf{v}$ strictly between $\mathbf{0}$ and $\mathbf{u}$ such that any degree $\leq \mathbf{u}$ is comparable with $\mathbf{v}$. (Received August 20, 2004)