1057-11-81   **Eun Ju Cheon*** (`enju1000@naver.com`), 500W. Prospect, #2-I, Fort Collins, CO 80526. *On linear codes with parameters close to those of Belov type codes.*

We consider the problem to find the smallest length n, denoted by $n_q(k, d)$, for which there exists an $[n, k, d]_q$ linear code for given k and d. A linear code is said to be length optimal if its length is equal to $n_q(k, d)$. For an $[n, k, d]_q$ linear code C, it is well known that n is at least $g_q(k, d)$, the Griesmer bound, and that the Belov type codes meet the Griesmer bound. In this talk, we deal with codes whose parameters are near to those of Belov type ones. For $k \geq 5$ and $q \geq 3$, we prove that $n_q(k, d) = g_q(k, d) + 1$ for $q^{k-1} - q^{k-1-t} - q^t - q + 1 \leq d \leq q^{k-1} - q^{k-1-t} - q^t$ with $2 \leq t \leq \frac{k-2}{2}$. (Received January 08, 2010)