1077-03-476 **Rebecca M. Steiner*** (`rsteiner@gc.cuny.edu`). *Low$_n$ Boolean Subalgebras.* Preliminary report.

Every low$_n$ Boolean algebra, for $1 \leq n \leq 4$, is isomorphic to a computable Boolean algebra. It is not yet known whether the same is true for $n > 4$. However, it is known that there exists a low$_5$ subalgebra of the computable atomless Boolean algebra which, when viewed as a relation on the computable atomless Boolean algebra, does not have a computable copy. We adapt the proof of this recent result to show that there exists a low$_4$ subalgebra of the computable atomless Boolean algebra which, when viewed as a relation on the computable atomless Boolean algebra, has no computable copy. This result provides a sharp contrast with the one which shows that every low$_4$ Boolean algebra has a computable copy. That is, the spectrum of the subalgebra as a unary relation can contain a low$_4$ degree without containing the degree $\mathbf{0}$, even though no spectrum of a Boolean algebra (viewed as a structure) can do the same. (Received September 03, 2011)