

## 2) (10 pts) ANL (Algorithm Analysis)

For a certain known data structure a lookup takes  $O(\sqrt{n})$  time, where  $n$  is the number of stored items. For a data set of 8,000,000 items the runtime for a look up was approximately 10ms. On a different data set the look up took 40ms. About how many **items** do you expect to be stored in the second data set?