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Data Structures 3:00 MWF
1/28/03
Exercises 1.3

1. a. $O[n^2]$ c. $O[n^2]$
2. The algorithm $6 * \log_2 n + 34 * n^2 + 12$ would have a big-O of $O[n^2 * \log_2 n]$, it is valid because no matter what the constants are, it has a magnitude of the variables involved (n).
3. O[1]
4. It is not significantly better for large integers.
5. a. has a big-O of $n^3 \log_2 n$
   b. has a big-O of 4^n
   c. has a big-O of 2^n