Assignment 3

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Question Set 1:

1.a. O(N) Each for loop runs N number of times. The other terms are constant, so they are discarded.

b. O(√N) The loop runs √N times. The other terms are constant, so they are discarded.

c. O(N2) The nested loop runs 2 loops N number of times. That is the highest order term so the single O(N) loop is discarded.

d. O(1) All terms are constant.

e.O(logN) In each iteration, N is divided by two.

2.a. O(N3)

b. O(N3)

c. O(N2)

d. O(N)

e. O(N4)