

1:

The strategy for growth is to have mild amounts of overallocation, just enough to give linear time amortization over a long sequence of appends. As well as always being a multiple of 4. It follows the sequence 0,4,8,16,24,32,40,52,64,76 as described on lines 60-68 in the lists.c file.

5:

It takes slightly longer to increase the array size from S to $S+1$ then it does to increase it from $S-1$ to S . this makes sense as increasing to $S+1$ requires the copying of 12 additional elements and additionally it is more likely that the array will have to be moved to a new place in memory.