PROGRAMMING 1B TEST

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QUESTION 1:

1. A
2. B
3. B
4. D
5. B
6. C
7. A
8. B
9. A
10. Value = 4
11. 1,75; 3,4; 1,15; 4,55; 0,5
12. 0,5; 2; 4,5; 8; 12,5
13. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
14. A) Correct, it will display intArr integers plus 2 on each one respectively.
    B) Incorrect, there is nothing attached to 'String sep = ""; and therefore, cannot be added to StrArr. System.out.println is incorrect it should be System.out.println
    C) Correct, it will display 4 elements * 2 individually.

QUESTION 3:

A. Bubble sort is a simple sorting algorithm that works by repeatedly going through an unsorted list of elements and swapping adjacent elements and moving to the right until the whole list is sorted.
B. With short lists that do not occupy a lot of memory storage.
C. O(n) and O(1)
D. Bubble sort is a simple sorting algorithm that sorts unsorted elements.
E. When the input list is already sorted
F. O(n^2)
G. O(n-1)

QUESTION 4:

A. Insertion sort is also a simple sorting algorithm that looks and sorts each element of an unsorted list one at a time sequentially and moves each element into its correct place and moving elements down the line.
B. Take the first element of the sorted list. Take the second element of the unsorted list. Compare elements that are next to each other. If unsorted the swap the two and continue this process until the list is sorted.
C. O(1)
D. We use insertion sort when we want to access something quicker and more efficient and occupy less space
E. Advantages: efficient, adaptive, stable
   Disadvatages: Takes alot of space