Question A

Text

Description automatically generated

1. The sorting algorithm is bubble sort, this sorting algorithm compare every two numbers in the array from the beginning until the tail of the array, then it start from the beginning again to repeat the bubble sort until the number in the array are all sorted in order. For example, in an array [ 3 , 1 , 6 , 4 , 10 ] The first two number is selected [3 , 1] and then compared , if the second number is smaller than the first number , their position is swapped , in this case , 1 is smaller than 3 so they will be swapped until [1 , 3] , the comparison of this two number ends , now it will goes to the next two numbers selection , which is [3 , 6] , since the 1 and 3 are already swapped , now it will repeat the bubble sort until the whole array are sorted properly.

Question 2

1. 
2. The algorithm used is a quick sort algorithm. This algorithm uses a pivot as a number , any number less than the pivot will be placed on the left of pivot, while any number larger than the pivot will be placed on right of pivot. Once this is done, the quick sort continue, where a pivot will be chosen from the left side of pivot and the right side of pivot respectively. The sorting of number smaller than pivot to the left and number bigger than pivot to the right repeat

Question 3

1. Static int swap = 0;
2. Swap = 10;
3. Depends on the pivot chosen and the initially number of sorted elements in the array before sorting algorithm .