More on Arrays:

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1. It prints the following

array[1] = 41

array[2] = 5

array[3] = 8

array[4] = 9

array[5] = 5

2. Swap function

```
1.  void swap ( int * p1, int *p2){
2.      int holder = *p1;
3.      *p1 = *p2;
4.      *p2 = holder;
5.  }
```

3. Swap elements looks to run swap across the entire array, but it will only run single swap when the first int is bigger than the second one so the largest number will end up at the end of the array, and the rest are just shifted by one.

4. b) swap (&a[i], &a[i+1]); It's the only one that works similarly because its passing the address to actually allow modification of the existing variables not just a copy of their values, like the rest of the answers do.

5. Removing the call of swap_elements, doesn't run the swap so it prints the original array.

   array[1] = 41
   array[2] = 5
   array[3] = 8
   array[4] = 9
   array[5] = 5
6. The array is not sorted because the swap function is not being run.
7. The new swap_elements returns 1.

8. The new main prints the following

```
pass Number 1
array[1] = 5
array[2] = 8
array[3] = 5
array[4] = 9
array[5] = 41
++++++++++++
pass Number 2
array[1] = 5
array[2] = 5
array[3] = 8
array[4] = 9
array[5] = 41
++++++++++++
pass Number 3
array[1] = 5
array[2] = 5
array[3] = 8
array[4] = 9
array[5] = 41
++++++++++++


               Thats what is known by the Bubble Sort Algorithm!
```

9. It prints this

```
               Thats what is known by the Bubble Sort Algorithm!


Process returned 0 (0x0)   execution time : 0.437 s
Press any key to continue.
```

10. Code below

```c
#include <stdio.h>
#include <stdlib.h>
int SIZE = 0;
void print (int*);
int main ()
{
    int keep_swapping=0;
    int array[100];
    int pass =1;
    printf("How many numbers do u want in the array? ");
    scanf(" %d", &SIZE);
    printf("Enter the numbers now: ");
    for(int i=0;i<SIZE;i++){
        scanf("%d", &array[i]);
    }
    keep_swapping = swap_elements (array);
    while ( keep_swapping==1)
    {
        keep_swapping = swap_elements(array);
        printf("pass Number %d\n", pass++);
        print(array);
        printf("++++++++++++++\n");
    }
    printf("\n\n\t\tThats what is known by the Bubble Sort Algorithm!\n\n\n");

    return 0;
}
void print(int *a){
    int index = 0;
    while (index < SIZE){
        printf("array[%d] = %d\n", index, a[index++]);
    }

}

void swap( int * p1, int *p2){
    int holder = *p1;
    *p1 = *p2;
    *p2 = holder;
}

int swap_elements (int *a){
    int i;
    int swapped = 0;
    for (i=0; i<SIZE-1; i++){
        if (a[i] > a[i+1]){
            swap(a+i, a+i+1);
            swapped = 1;
        }
    }
    return swapped;
}
```