

```

//18.quick sorting
#include<stdio.h>

void quicksort(int x[20],int first,int last)
{
    int pivot,j,temp,i;
    if(first<last)
    {
        pivot=first;
        i=first;
        j=last;
        while(i<j)
        {
            while(x[i]<=x[pivot]&& i<last)
                i++;
            while(x[j]>x[pivot])
                j--;
            if(i<j)
            {
                temp=x[i];
                x[i]=x[j];
                x[j]=temp;
            }
        }
        temp=x[pivot];
        x[pivot]=x[j];
        x[j]=temp;
        quicksort(x,first,j-1);
        quicksort(x,j+1,last);
    }
}

int main()

```

```

{
    int x[20],size,i;

    printf("\tQuick sort\n");

    printf("-----\n");

    printf(" How many numbers you want to sort?: ");

    scanf("%d",&size);

    printf("\n Enter %d elements: \n",size);

    for(i=0;i<size;i++)

        scanf("%d",&x[i]);

    quicksort(x,0,size-1);

    printf("\n Sorted elements after applying quick sort: \n\n");

    for(i=0;i<size;i++)

        printf(" %d",x[i]);

    return 0;
}

```

```

Quick sort
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How many numbers you want to sort?: 6

Enter 6 elements:
3
6
9
1
2
5

Sorted elements after applying quick sort:

1 2 3 5 6 9
-----
Process exited after 15.86 seconds with return value 0
Press any key to continue . . . |

```