29.

```
#include <stdio.h>
int partition(int a[], int low, int high) {
   int pivot = a[low], i = low + 1, j = high, temp;
   while (i <= j) {
      while (i <= high && a[i] <= pivot) i++;
      while (a[j] > pivot) j--;
      if (i < j) {
         temp = a[i];
         a[i] = a[j];
         a[j] = temp;
      }
   }
   a[low] = a[j];
   a[j] = pivot;
   return j;
}
void quickSort(int a[], int low, int high) {
   if (low < high) {
      int pi = partition(a, low, high);
      quickSort(a, low, pi - 1);
      quickSort(a, pi + 1, high);
   }
}
int main() {
   int a[100], n, i;
   printf("Enter number of elements: ");
   scanf("%d", &n);
   printf("Enter elements:\n");
   for(i = 0; i < n; i++)
       scanf("%d", &a[i]);
```

```
Enter number of elements: 5
Enter elements:
21 54 32 87 98
Sorted array:
21 32 54 87 98
```

```
   quickSort(a, 0, n - 1);
    printf("Sorted array:\n");
    for(i = 0; i < n; i++)
         printf("%d ", a[i]);
   return 0;
}
```