

```

1  #include <iostream>
2  using namespace std;
3
4  int getListOfCommon(int list1[], int p, int list2[], int q, int out[], int outcap)
5  {
6      int i = 0; int j = 0; int k = 0;
7      while (i < p && j < q)
8      {
9          if (k >= outcap) return k;
10         if (list1[i] == list2[j])
11         {
12             if (k < outcap)
13             {
14                 out[k] = list1[i];
15                 i++; j++; k++;
16             }
17             else return k;
18         }
19         if (list1[i] < list2[j]) i++;
20         if (list2[j] < list1[i]) j++;
21     }
22     return k;
23 }
24
25 void printList(int list[], int len)
26 {
27     for (int i = 0; i < len; i++)
28     {
29         cout << list[i] << endl;
30     }
31 }
32
33 int main()
34 {
35     int outcap = 4;
36     int out[outcap];
37     int list1[] = {1,5,7,9,12}; int p = 5;
38     int list2[] = {1,3,4,5,6,7,8}; int q = 7;
39     int size = getListOfCommon(list1, p, list2, q, out, outcap);
40     printList(out, size);
41
42     return 0;
43 }

```