

```

1 // 8.6
2 #include <stdio.h>
3
4 #define MX 100
5
6 int main(void)
7 {
8     int A[MX], B[MX], C[2*MX];
9     int nA, nB, nC;
10    int ai, bi, ci;
11
12    printf("Enter the size of A and its elements:\n");
13    scanf("%d", &nA);
14    for(ai=0; ai < nA; ++ai ) scanf("%d", &A[ai] );
15
16    printf("Enter the size of B and its elements:\n");
17    scanf("%d", &nB);
18    for(bi=0; bi < nB; ++bi ) scanf("%d", &B[bi] );
19
20    nC = nA + nB;
21
22    ai = bi = ci = 0;
23    while( ai < nA && bi < nB ){
24        if( A[ai] < B[bi] ) C[ ci++ ] = A[ ai++ ];
25        else C[ ci++ ] = B[ bi++ ];
26    }
27
28    while( ai < nA ){
29        C[ci++] = A[ai++];
30    }
31    while( bi < nB ){
32        C[ci++] = B[bi++];
33    }
34
35    printf("Size of C: %d\n", nC);
36    for(ci=0; ci < nC; ++ci){
37        printf("%d ", C[ci] );
38    }
39    printf("\n");
40
41    return 0;
42 }
43

```