

```

1  /* BitmapTest.c */
2  #include <stdio.h>
3  #include "Bitmap.h"
4
5  int main()
6  {
7      BITMAP map;
8      BitmapNew(&map, 10);
9      printf("map capacity is %d\n", BitmapCapacity(&map));
10     int i = 1;
11     for (; i <= 10; i++)
12     {
13         if (BitmapTest(&map, i))
14         {
15             printf("map %d th bit is 1\n", i);
16         }
17         else
18         {
19             printf("map %d th bit is 0\n", i);
20         }
21     }
22     for (i = 1; i <= 10; i++)
23     {
24         BitmapSet(&map, i);
25     }
26     for (i = 1; i <= 10; i++)
27     {
28         if (BitmapTest(&map, i))
29         {
30             printf("map %d th bit is 1\n", i);
31         }
32         else
33         {
34             printf("map %d th bit is 0\n", i);
35         }
36     }
37     BITMAP mapN;
38     BitmapNew(&mapN, 11);
39     BitmapCopy(&mapN, &map);
40     for (i = 1; i <= 11; i++)
41     {
42         if (BitmapTest(&mapN, i))
43         {
44             printf("mapN %d th bit is 1\n", i);
45         }
46         else
47         {
48             printf("mapN %d th bit is 0\n", i);
49         }
50     }
51     for (i = 1; i <= 10; i++)
52     {
53         BitmapClear(&map, i);
54     }
55     for (i = 1; i <= 10; i++)
56     {
57         if (BitmapTest(&map, i))
58         {
59             printf("map %d th bit is 1\n", i);
60         }
61         else
62         {
63             printf("map %d th bit is 0\n", i);
64         }
65     }
66     BitmapDispose(&map);
67     BitmapDispose(&mapN);
68     return 0;
69 }

```