```c
 1  #include <stdio.h>
 2  #include <stdlib.h>
 3
 4  int main(void)
 5  {
 6      //function declarations
 7      void MultiplyArrayElementsByNumber(int *, int, int);
 8
 9      //variable declaration
10      int *iArray = NULL;
11      int num_elements;
12      int i, num;
13
14      //code
15      printf("\n\n");
16      printf("Enter How Many Elements You Want In The Integer Array : ");
17      scanf("%d", &num_elements);
18
19      iArray = (int *)malloc(num_elements * sizeof(int));
20      if (iArray == NULL)
21      {
22          printf("MEMORY ALLOCATION TO 'iArray' HAS FAILED !!! EXITTING NOW...\n
                \n");
23          exit(0);
24      }
25
26      printf("\n\n");
27      printf("Enter %d Elements For The Integer Array : \n\n", num_elements);
28      for (i = 0; i < num_elements; i++)
29          scanf("%d", &iArray[i]);
30
31      // ****** ONE ******
32      printf("\n\n");
33      printf("Array Before Passing To Function MultiplyArrayElementsByNumber() :
            \n\n");
34      for (i = 0; i < num_elements; i++)
35          printf("iArray[%d] = %d\n", i, iArray[i]);
36
37      printf("\n\n");
38      printf("Enter The Number By Which You Want To Multiply Each Array Element :
            ");
39      scanf("%d", &num);
40
41      MultiplyArrayElementsByNumber(iArray, num_elements, num);
42
43      printf("\n\n");
44      printf("Array Returned By Function MultiplyArrayElementsByNumber() : \n
            \n");
45      for (i = 0; i < num_elements; i++)
46          printf("iArray[%d] = %d\n", i, iArray[i]);
47
48      if (iArray)
49      {
50          free(iArray);
51          iArray = NULL;
52          printf("\n\n");
```

```
53            printf("MEMORY ALLOCATED TO 'iArray' HAS BEEN SUCCESSFULLY FREED !!!\n ↵
              \n");
54        }
55
56        return(0);
57  }
58
59  void MultiplyArrayElementsByNumber(int *arr, int iNumElements, int n)
60  {
61        //variable declarations
62        int i;
63
64        //code
65        for (i = 0; i < iNumElements; i++)
66            arr[i] = arr[i] * n;
67  }
68
```