

```
1  #include <stdio.h>
2
3  int main(void)
4  {
5      //variable declarations
6      int num;
7      int *ptr = NULL;
8      int *copy_ptr = NULL;
9
10     //code
11     num = 5;
12     ptr = &num;
13
14     printf("\n\n");
15     printf("***** BEFORE copy_ptr = ptr *****\n\n");
16     printf("    num           = %d\n", num);
17     printf("    &num          = %p\n", &num);
18     printf("    *(&num)        = %d\n", *(&num));
19     printf("    ptr           = %p\n", ptr);
20     printf("    *ptr          = %d\n", *ptr);
21
22     // 'ptr' is an integer pointer variable...that it it can hold the address of  ➤
23     // any integer variable only
24     // 'copy_ptr' is another integer pointer variable
25     // If ptr = &num ... 'ptr' will contain address of integer variable 'num'
26     // If 'ptr' is assigned to 'copy_ptr', 'copy_ptr' will also contain address of  ➤
27     // integer variable 'num'
28     // Hence, now, both 'ptr' and 'copy_ptr' will point to 'num' ...
29
30     copy_ptr = ptr; // copy_ptr = ptr = &num
31
32     printf("\n\n");
33     printf("***** AFTER copy_ptr = ptr *****\n\n");
34     printf("    num           = %d\n", num);
35     printf("    &num          = %p\n", &num);
36     printf("    *(&num)        = %d\n", *(&num));
37     printf("    ptr           = %p\n", ptr);
38     printf("    *ptr          = %d\n", *ptr);
39     printf("    copy_ptr      = %p\n", copy_ptr);
40     printf("    *copy_ptr     = %d\n", *copy_ptr);
41     return(0);
42 }
```