

Operators in C

Lecture 2 Assignments

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1. Code the following:
 - a. Prompt the user to enter a two-digit number
 - b. Display the number with the digits reversed

Code (as1.c):

```
1  #include <stdio.h>
2
3  int main(void){
4      int i, j;
5
6      printf("Enter a two digit number: ");
7      scanf("%1d%1d", &i, &j);
8
9      printf("Reversed number: %d%d\n", j, i);
10
11     return 0;
12 }
```

Example Output:

```
C:\Users\user\Documents\CMSC21\Lecture2\Assignments>as1
Enter a two digit number: 37
Reversed number: 73
```

2. Extend the code in item 1, such that it reverses a 3-digit number.

Code (as2.c):

```
1  #include <stdio.h>
2
3  int main(void){
4      int i, j, k;
5
6      printf("Enter a three digit number: ");
7      scanf("%1d%1d%1d", &i, &j, &k);
8
9      printf("Reversed number: %d%d%d\n", k, j, i);
10
11     return 0;
12 }
```

Example Output:

```
C:\Users\user\Documents\CMSC21\Lecture2\Assignments>as2
Enter a three digit number: 345
Reversed number: 543
```

3. Provide the output of the following codes, given that i, j, and k are integer variables.

- a. `i = 3; j = 4; k = 5;`
`printf("%d", i < j || ++j < k);`
- b. `i = 7; j = 8; k = 9;`
`printf("%d", i - 7 && j++ < k);`
- c. `i = 7; j = 8; k = 9;`
`printf("%d", (i = j) || (j == k));`
`printf("%d %d %d", i, j, k);`
- d. `i = j = k = 1;`
`printf("%d", ++i || ++j && ++k);`
`printf("%d %d %d", i, j, k);`

Code (as3.c):

```
1  #include <stdio.h>
2
3  int main(void){
4      int i, j, k;
5
6      //a)
7      i = 3; j = 4; k = 5;
8      printf("a)%d\n", i < j || ++j < k);
9
10     //b)
11     i = 7; j = 8; k = 9;
12     printf("b)%d\n", i - 7 && j++ < k);
13
14     //c)
15     i = 7; j = 8; k = 9;
16     printf("c)%d\n", (i = j) || (j == k));
17
18     //d)
19     i = j = k = 1;
20     printf("d)%d\n", ++i || ++j && ++k);
21     printf(" %d %d %d\n", i, j, k);
22
23 }
```

Example Output:

```
C:\Users\user\Documents\CMSC21\Lecture2\Assignments>as3
a)1
b)0
c)1
d)1
 2 1 1
```