

Operators in C

Lecture 2 Assignments

1. Code the following:

- Prompt the user to enter a two-digit number
- Display the number with the digits reversed

Example:

Please enter a 2-digit number: 75

Reverse: 57

```
1  #include <stdio.h>
2
3  int main(void){
4      int input, remainder, result, divided; //Declaring variables as integers to make the result in whole number and consistent
5
6      printf("Enter the 2 digit number: ");
7      scanf("%d",&input); //Input asking number
8
9      remainder = (input % 10) * 10; //Manipulating the number from modulo 10 times 10 + divided number
10     divided = input / 10;
11     result = divided + remainder;
12
13     printf("Reversed digit: %d", result); //display result
14
15 }
16
17
```

```
Enter the 2 digit number: 69
Reversed digit: 96
Process returned 0 (0x0)   execution time : 12.654 s
Press any key to continue.
```

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

Example:

Please enter a 3-digit number: 123

Reverse: 321

```
here X Cmsc21.c X as1.c X *as2.c X as3.c X
1  #include <stdio.h>
2
3  int main(void){
4      int input, ones, tens, hundreds, result; // Declaring variables to be used since its three digit divide parts into regions
5      printf("Enter the 3 digit number: ");
6      scanf("%d",&input); //input asking number
7
8      ones = input %10; /*Manipulating the number formulas modulo in each regions
9                        then divided result is multiplied by 100 and 10 and sum up all*/
10     tens = ((input/10)%10);
11     hundreds = input/100;
12     result = (ones*100)+(tens*10)+hundreds;
13
14     printf("Reversed digit: %d", result); //display reverse
15 }
16
17
```

```
C:\Users\Hp\Desktop\CMSC21\as2.exe
Enter the 3 digit number: 169
Reversed digit: 961
Process returned 0 (0x0)   execution time : 6.123 s
Press any key to continue.
```

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);

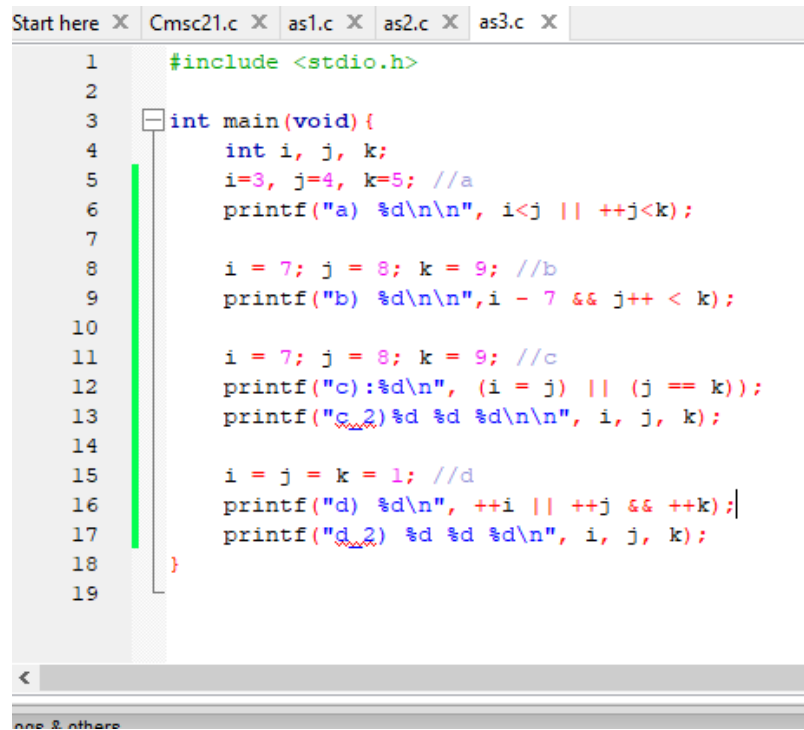
b) i = 7; j = 8; k = 9;

printf("%d", i - 7 && j++ < k);

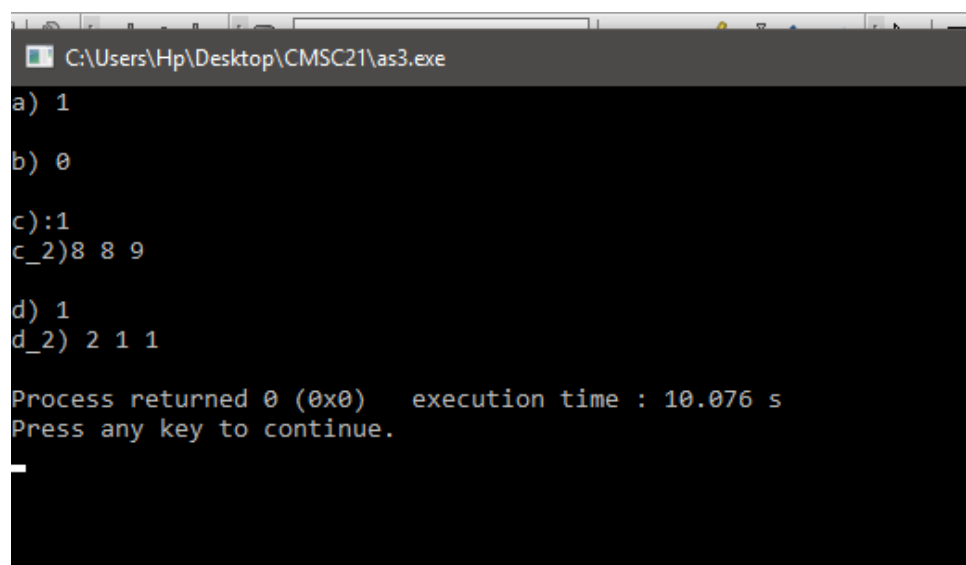
c) i = 7; j = 8; k = 9;

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);
```



```
1  #include <stdio.h>  
2  
3  int main(void) {  
4      int i, j, k;  
5      i=3, j=4, k=5; //a  
6      printf("a) %d\n\n", i<j || ++j<k);  
7  
8      i = 7; j = 8; k = 9; //b  
9      printf("b) %d\n\n", i - 7 && j++ < k);  
10  
11     i = 7; j = 8; k = 9; //c  
12     printf("c):%d\n", (i = j) || (j == k));  
13     printf("c_2)%d %d %d\n\n", i, j, k);  
14  
15     i = j = k = 1; //d  
16     printf("d) %d\n", ++i || ++j && ++k);  
17     printf("d_2) %d %d %d\n", i, j, k);  
18 }  
19
```



```
C:\Users\Hp\Desktop\CMSC21\as3.exe  
a) 1  
b) 0  
c):1  
c_2)8 8 9  
d) 1  
d_2) 2 1 1  
  
Process returned 0 (0x0)   execution time : 10.076 s  
Press any key to continue.
```