

1.

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*main.c X
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      /*this code does not have any outputs, only shows how
7       the following conditional statment can be simplified:
8
9       if (age >= 13)
10         if (age<=19)
11             teenager = true;
12         else
13             teenager = false;
14     else if (age<13)
15         teenager = false; */
16
17     //siplified code:
18
19     if (13<=age<=19)
20         teenager = true;
21     else
22         teenager = false;
23
24     return 0;
25
26 }
27
```

2.

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      /*for some reason, this code has encountered problems when using int inputs.
7       As a solution, the programmer compromised and treated inputs as characters instead.
8       Also, considering the scope of functions that can be used in this code, the programmer
9       assumed that the input will be logically accepted.*/
10
11     char dig_1, dig_2; //declaring data type for broken-down inputs
12     printf("Enter a two-digit number: "); //printing instructions
13     scanf("%c%c", &dig_1, &dig_2); //next inputs
14
15     printf("Number entered in words: "); //printing results in the terminal
16
17     //selection statement for the tens place digit
18
19     //prints the first word of the two-digit number on the terminal,
20     then applies break to each case to navigate a*output logically*/
21     switch (dig_1)
22     {
23         case '1':
24             //special conditions for digits with 1 on the tens place
25             //different printed outputs for each condition*/
26             if (dig_2 == '0')
27                 printf("Ten.");
28             else if (dig_2 == '1')
29                 printf("Eleven.");
30             else if (dig_2 == '2')
31                 printf("Twelve.");
32             else if (dig_2 == '3')
33                 printf("Thirteen.");
34             else if (dig_2 == '4')
35                 printf("Fourteen.");
36             else if (dig_2 == '5')
37                 printf("Fifteen.");
38             else if (dig_2 == '6')
39                 printf("Sixteen.");
40             else if (dig_2 == '7')
41                 printf("Seventeen.");
42             else if (dig_2 == '8')
43                 printf("Eighteen.");
44             else if (dig_2 == '9')
45                 printf("Nineteen.");
46             break; //break included for the terminal outputs not to overlap, though conditions are not met
47
48         //prints the first word in the tens place
49         case '2': printf("Twenty"); break;
50         case '3': printf("Thirty"); break;
51         case '4': printf("Forty"); break;
52         case '5': printf("Fifty"); break;
53         case '6': printf("Sixty"); break;
54         case '7': printf("Seventy"); break;
55     }
56 }
```

github link: <https://github.com/mackkk-n/CMSC-21-Lecture-/tree/master/Lecture%203>