

1. `*main.c`

```
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   }
```

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", &dig_1, &dig_2); //next input
14
15      printf("Number entered in words: "); //printing results in the terminal
16
17
18      //selection statement for the tens place digit
19
20      //prints the first word of the two-digit number on the terminal,
21      then applies break to each case to navigate a*output logically*/
22      switch (dig_1)
23      {
24          case '1':
25              //special conditions for digits with 1 on the tens place
26              //different printed outputs for each condition*/
27              if (dig_2 == '0')
28                  printf("Ten.");
29              else if (dig_2 == '1')
30                  printf("Eleven.");
31              else if (dig_2 == '2')
32                  printf("Twelve.");
33              else if (dig_2 == '3')
34                  printf("Thirteen.");
35              else if (dig_2 == '4')
36                  printf("Fourteen.");
37              else if (dig_2 == '5')
38                  printf("Fifteen.");
39              else if (dig_2 == '6')
40                  printf("Sixteen.");
41              else if (dig_2 == '7')
42                  printf("Seventeen.");
43              else if (dig_2 == '8')
44                  printf("Eighteen.");
45              else if (dig_2 == '9')
46                  printf("Nineteen.");
47              break; //break included for the terminal outputs not to overlap, though conditions are not met
48
49          //prints the first word in the tens place
50          case '2': printf("Twenty"); break;
51
52          case '3': printf("Thirty"); break;
53
54          case '4': printf("Forty"); break;
55
56          case '5': printf("Fifty"); break;
57
58          case '6': printf("Sixty"); break;
59
60          case '7': printf("Seventy"); break;
```