

Selection Statements

Lecture 3 Assignments

1.

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <stdbool.h>
4
5  int main()
6  {
7      // declare variables
8      int age;
9      bool teenager; // boolean of true and false
10     printf("Enter age: ");
11     scanf("%d", &age);
12
13     if (age >= 13 && age <=19){ // simplified code
14         teenager = true;
15     }
16     else{
17         teenager = false;
18     }
19     //prints out a string of true or false of the teenager
20     printf("Teenager: %s\n", teenager ? "true" : "false");
21
22     return 0;
23 }
24
```

Output:

```
"C:\Users\briana jade\Documents\C\as1.c\bin\Debug\as1.exe"
Enter age: 13
Teenager: true

Process returned 0 (0x0)   execution time : 2.960 s
Press any key to continue.
```

```
"C:\Users\briana jade\Documents\C\as1.c\bin\Debug\as1.exe"
Enter age: 19
Teenager: true

Process returned 0 (0x0)   execution time : 2.047 s
Press any key to continue.
```

```
"C:\Users\briana jade\Documents\C\as1.c\bin\Debug\as1.exe"
Enter age: 15
Teenager: true

Process returned 0 (0x0)   execution time : 1.953 s
Press any key to continue.
```

```
"C:\Users\briana jade\Documents\C\as1.c\bin\Debug\as1.exe"
Enter age: 9
Teenager: false

Process returned 0 (0x0)   execution time : 5.238 s
Press any key to continue.
```

2.

```

1  #include <stdio.h>
2  #include <stdlib.h>
3
4
5  int main()
6  {
7      int num1, num2;
8
9      printf("Enter a two digit number: ");
10     scanf("%ld%ld", &num1, &num2);
11
12     // first digit word
13     switch (num1)
14     {
15         case 1:
16             // special treatment for numbers between 11-19
17             switch (num2)
18             {
19                 case 0:
20                     printf("ten");
21                     return 0;
22                 case 1:
23                     printf("eleven");
24                     return 0;
25                 case 2:
26                     printf("twelve");
27                     return 0;
28                 case 3:
29                     printf("thirteen");
30                     return 0;
31                 case 4:
32                     printf("fourteen");
33                     return 0;
34                 case 5:
35                     printf("fifteen");
36                     return 0;

```

```

C:\05\st01\ana\ade\documents\c\as2\c\01\de\bug\as2.exe
Enter a two digit number: 25
twenty-five
Process returned 0 (0x0)   execution time : 2.266 s
Press any key to continue.

```

```

37         case 6:
38             printf("sixteen");
39             return 0;
40         case 7:
41             printf("seventeen");
42             return 0;
43         case 8:
44             printf("eighteen");
45             return 0;
46         case 9:
47             printf("nineteen");
48             return 0;
49     }
50     case 2: // numbers for 20-90
51         printf("twenty");
52         break;
53     case 3:
54         printf("thirty");
55         break;
56     case 4:
57         printf("forty");
58         break;
59     case 5:
60         printf("fifty");
61         break;
62     case 6:
63         printf("sixty");
64         break;
65     case 7:
66         printf("seventy");
67         break;
68     case 8:
69         printf("eighty");
70         break;
71     case 9:
72         printf("ninety");

```

```

74     }
75
76     // second digit word
77     switch (num2)
78     {
79         case 1:
80             printf("-one");
81             break;
82         case 2:
83             printf("-two");
84             break;
85         case 3:
86             printf("-three");
87             break;
88         case 4:
89             printf("-four");
90             break;
91         case 5:
92             printf("-five");
93             break;
94         case 6:
95             printf("-six");
96             break;
97         case 7:
98             printf("-seven");
99             break;
100        case 8:
101            printf("-eight");
102            break;
103        case 9:
104            printf("-nine");
105            break;
106    }
107
108    return 0;
109 }

```