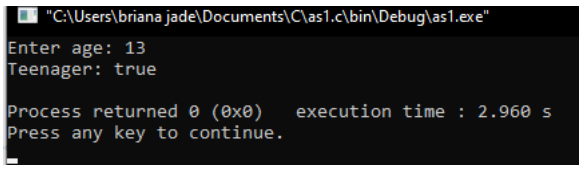
Selection Statements

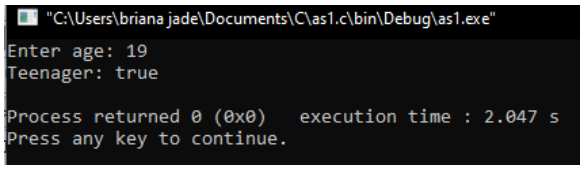
Lecture 3 Assignments

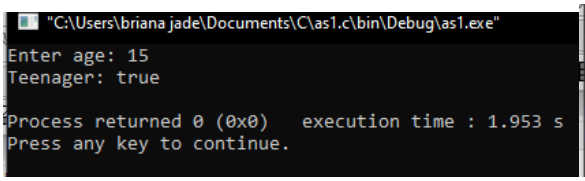
1.

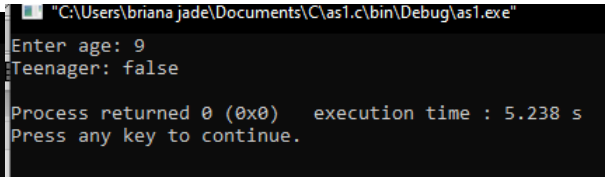
```c
#include <stdio.h>
#include <stdlib.h>
#include <stdbool.h>

int main()
{
    // declare variables
    int age;
    bool teenager; // boolean of true and false
    printf("Enter age: ");
    scanf("%d", &age);

    if (age >= 13 && age <=19){ // simplified code
        teenager = true;
    }
    else{
        teenager = false;
    }
    //prints out a string of true or false of the teenager
    printf("Teenager: %s\n", teenager ? "true" : "false");

    return 0;
}
```

Output:









2.

```c
#include <stdio.h>
#include <stdlib.h>


int main()
{
    int num1, num2;

    printf("Enter a two digit number: ");
    scanf("%1d%1d", &num1, &num2);

    // first digit word
    switch (num1)
    {
        case 1:
            // special treatment for numbers between 11-19
            switch (num2)
            {
                case 0:
                    printf("ten");
                    return 0;
                case 1:
                    printf("eleven");
                    return 0;
                case 2:
                    printf("twelve");
                    return 0;
                case 3:
                    printf("thirteen");
                    return 0;
                case 4:
                    printf("fourteen");
                    return 0;
                case 5:
                    printf("fifteen");
                    return 0;
                case 6:
                    printf("sixteen");
                    return 0;
                case 7:
                    printf("seventeen");
                    return 0;
                case 8:
                    printf("eigthteen");
                    return 0;
                case 9:
                    printf("nineteen");
                    return 0;
            }
        case 2: // numbers for 20-90
            printf("twenty");
            break;
        case 3:
            printf("thirty");
            break;
        case 4:
            printf("forty");
            break;
        case 5:
            printf("fifty");
            break;
        case 6:
            printf("sixty");
            break;
        case 7:
            printf("seventy");
            break;
        case 8:
            printf("eighty");
            break;
        case 9:
            printf("ninety");
    }

    // second digit word
    switch (num2)
    {
        case 1:
            printf("-one");
            break;
        case 2:
            printf("-two");
            break;
        case 3:
            printf("-three");
            break;
        case 4:
            printf("-four");
            break;
        case 5:
            printf("-five");
            break;
        case 6:
            printf("-six");
            break;
        case 7:
            printf("-seven");
            break;
        case 8:
            printf("-eight");
            break;
        case 9:
            printf("-nine");
            break;
    }

    return 0;
}
```

```
Enter a two digit number: 25
twenty-five
Process returned 0 (0x0)   execution time : 2.266 s
Press any key to continue.
```