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Assignment 3

1. Find the errors.

```
// This program uses an if/else if statement to assign a
// letter grade (A, B, C, D, or F) to a numeric test score.
#include <iostream>
using namespace std;
int main()
{
    int testScore;
    cout << "Enter your test score and I will tell you\n";
    cout << "the letter grade you earned: ";
    cin >> testScore;
    if (testScore < 60)
        cout << "Your grade is F.\n";
    else if (testScore < 70)
        cout << "Your grade is D.\n";
    else if (testScore < 80)
        cout << "Your grade is C.\n";
    else if (testScore < 90)
        cout << "Your grade is B.\n";
    else
        cout << "That is not a valid score.\n";
    else if (testScore <= 100)
        cout << "Your grade is A.\n";
    return 0;
}
```

2. Find the errors

```
// This program uses a switch-case statement to assign a
// letter grade (A, B, C, D, or F) to a numeric test score.
#include <iostream>
using namespace std;
int main()
{
    double testScore;
    cout << "Enter your test score and I will tell you\n";
    cout << "the letter grade you earned: ";
    cin >> testScore;
    switch (testScore)
    {
        case (testScore < 60.0):
            cout << "Your grade is F.\n";
            break;
        case (testScore < 70.0):
            cout << "Your grade is D.\n";
            break;
        case (testScore < 80.0):
            cout << "Your grade is C.\n";
            break;
        case (testScore < 90.0):
            cout << "Your grade is B.\n";
            break;
        case (testScore <= 100.0):
            cout << "Your grade is A.\n";
            break;
        default:
            cout << "That score isn't valid\n";

    return 0;
}
```

3. Understanding how time works

a.

```
Please enter the current time in seconds:
243857
Days: 2
Hours: 19
Minutes: 44
Seconds: 17
```

b.

```
Please enter the current time in seconds:
32961
Hours: 9
Minutes: 9
Seconds: 21
```

c.

```
Please enter the current time in seconds:
1758
Minutes: 29
Seconds: 18
```

4. Menus, Decisions, and Validation

a.

```
Enter first competitor: Stefen
Enter second competitor: Blake
Enter third competitor: Cory
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
1
Enter the number of stones Stefen was able to lift for attempt 1:
6
Enter the number of stones Blake was able to lift for attempt 1:
5
Enter the number of stones Cory was able to lift for attempt 1:
5
Enter the number of stones Stefen was able to lift for attempt 2:
5
Enter the number of stones Blake was able to lift for attempt 2:
6
Enter the number of stones Cory was able to lift for attempt 2:
7
***** Stone Over Bar *****
Competitors    Stones Lifted    Points    Place
Stefen         6                2        2
Blake          6                2        2
Cory           7                3        1
```

```

Enter first competitor: Stefen

Enter second competitor: Blake

Enter third competitor: Cory
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
2
Enter the number of seconds Stefen took to complete attempt 1:
16.45
Enter the number of seconds Blake took to complete attempt 1:
20.58
Enter the number of seconds Cory took to complete attempt 1:
22.38
Enter the number of seconds Stefen took to complete attempt 2:
16.78
Enter the number of seconds Blake took to complete attempt 2:
19.71
Enter the number of seconds Cory took to complete attempt 2:
21.94
***** Farmers Frame Medley *****
  Competitors      Seconds      Points      Place
    Stefen          16.45         3          1
     Blake          19.71         2          2
      Cory          21.94         1          3

```

b.

```

Enter first competitor: Stefen

Enter second competitor: Blake

Enter third competitor: Cory
Please select which event you would like to enter data for (1-3):
1. Stone Over
2. Farmers Frame Medley
3. Axle Deadlift
3
Number of pounds Stefen lifted in attempt 1:
380
Number of pounds Blake lifted in attempt 1:
300
Number of pounds Cory lifted in attempt 1:
340
Number of pounds Stefen lifted in attempt 2:
408
Number of pounds Blake lifted in attempt 2:
345
Number of pounds Cory lifted in attempt 2:
375
***** Axle Deadlift *****
  Competitors      Pounds      Points      Place
    Stefen          408         3          1
     Blake          345         1          3
      Cory          375         2          2

```

c.