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Lab 2 Deliverables

```c
// Notes: you do not need to implement rounding
int16_t Find_Mean(int16_t Readings[], int32_t N){

    int32_t readingsSum = 0;

    for(uint32_t i=0; i < N; i++){

        readingsSum += Readings[i];

    }
    return (readingsSum / N);
}

// Convert temperature in Centigrade to temperature in Farenheit
// Inputs: temperature in Centigrade
// Output: temperature in Farenheit
// Notes: you do not need to implement rounding
int16_t CtoF(int16_t const TinC){

    int32_t TinF;

    TinF = ((TinC*9)/5 +32);

    return TinF;
}

// Return True of False based on whether the readings
// are an increasing monotonic series
// Inputs: Readings is an array of 16-bit temperature measurements
//         N is the number of elements in the array
// Output: true if monotonic decreasing, false if nonmonotonic
int IsMonotonic(int16_t Readings[], int32_t N){

    int16_t isMonotonicStart = Readings[0];

    for(int32_t i = 1; i < N; i++){
        if(Readings[i] <= isMonotonicStart){
            isMonotonicStart = Readings[i];
        }else{
            return False;
        }
    }

    return True;
}
```

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```
EE319K Fall 2019 Lab 2
Temperature Sensor Data Analysis
Test of your Find_Mean...ok
Test of your CtoF...ok
Test of your IsMonotonic...ok
 Passed all tests -  End of Analysis
```